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Site Name ROBERTS ST HATCHERY

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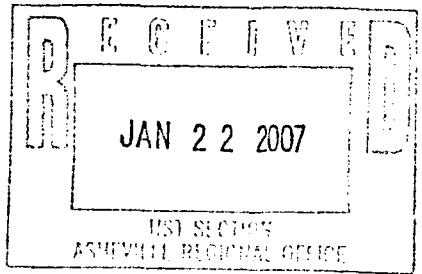
AccessLevel PUBLIC

Division WASTE MANAGEMENT

Section SUPERFUND

Program IHS (IHS)

DocCat FACILITY



*Limited Site  
Assessment Report*

**FORMER ROBERTS STREET HATCHERY**  
**144 Roberts Street**  
**Asheville, North Carolina 28801**

**UST INCIDENT #28462**  
**AES PROJECT # 6620.01-P2**

*Prepared For:*

Urvana LLC  
4462 Violet Avenue  
Sarasota, FL 34233

Mr. Whit Rylee, Urvana, LLC  
40 Roberts Street  
Asheville, NC 28801

Mr. Michael Streeter, Hydrogeologist  
NC DENR Division of Waste Management - UST Section  
Asheville Regional Office  
2090 US Highway 70  
Swannanoa, NC 28778

*Prepared By:*

Alpha Environmental Sciences, Inc.  
367 Dellwood Road, Building A, Suite 2  
Post Office Box 31  
Waynesville, NC 28786  
(828) 452-3449

*January 18, 2007*  
*AES Project #6620.01*

## A. SITE IDENTIFICATION

**Date of Report:** 12/11/06

**Facility I.D.:** N/A

**UST Incident Number:** 28462

**Site Name:** Former Roberts Street Hatchery

**Site Location:** 144 Roberts Street, Asheville, NC 28801

**UST Owner:** Urvana, LLC

**Address:** 40 Roberts Street

**Contact:** Whit Rylee

**Phone:** 828-280-8884

**UST Operator:** Urvana, LLC

**Address:** Same as above

**Property Owner:** Urvana, LLC

**Address:** Same as above

**Property Occupant:** Urvana, LLC (property is currently under construction)

**Address:** Same as above

**Consultant/Contractor:** Alpha Environmental Sciences, Inc.

**Address:** 367 Dellwood Rd., Waynesville, North Carolina 28786

**Phone:** 828-452-3449, 828-226-8909

**Contact:** John Mazurek

### Release Information

**Date Discovered:** 11/30/2006

**Latitude:** 35° 35' 25.539" N      **Longitude:** 82° 34' 8.171" E

**Estimated Quantity of Release:** Unknown

**Cause of Release:** Leaking underground storage tank (UST)

**Source of Release:** Multiple pinholes in base and side of UST

**Sizes and contents of UST system(s) from which the release occurred:** One 1,000 gallon, #2 fuel-oil UST

I, Roger D. Moore, P.G., a Licensed Geologist for Alpha Environmental Sciences, Inc., do certify that the information contained in this report is correct and accurate to the best of my knowledge.



**John Mazurek**  
Environmental Project Manager

## B. RISK CHARACTERIZATION

### **Part 1 - Groundwater/Surface Water/Vapor Impacts**

#### ***High Risk***

- |   |  |
|---|--|
| <ol style="list-style-type: none"> <li>1. Has the release contaminated any water supply well including any well used for non-drinking purposes?</li> <li>2. Is a water supply well used for drinking water located within 1,000 feet of the source area of release?</li> <li>3. Is a water supply well not used for drinking water (e.g., irrigation, washing cars, industrial cooling water, filling swimming pools) located within 250 feet of the source area of the release?</li> <li>4. Does groundwater within 500 feet of the source area of the release have the potential for future use (there is no other source of water supply other than the groundwater)?</li> <li>5. Do vapors from the release pose a threat of explosion because of accumulation of the vapors in a confined space or pose any other serious threat to public health, public safety or the environment?<br/>If yes, describe.</li> <li>6. Are there any other factors that would cause the release to pose an imminent danger to public health, public safety, or the environment?</li> </ol> | <b>NO</b><br><b>NO</b><br><b>NO</b><br><b>NO</b><br><b>NO</b><br><b>NO</b> |
|---|--|

#### ***Intermediate Risk***

- |  |  |
|--|--|
| <ol style="list-style-type: none"> <li>7. Is a surface water body located within 500 feet of the source area of the release?<br/>If yes, does the maximum groundwater contaminant concentration exceed the surface water quality standards and criteria found in 15A NCAC 2B .0200 by a factor of 10?</li> <li>8. Is the source area of the release located within a approved or planned wellhead protection area as defined in 42 USC 300h-7 (e)?</li> <li>9. Is the release located in the Coastal Plain physiographic region as designated on a map entitled "Geology of North Carolina" published by the Department in 1985?</li> <li>10. Do the levels of groundwater contamination for any contaminant exceed the gross contamination levels (see Table 9) by the Department?</li> </ol> | <b>NO</b><br><b>NO</b><br><b>NO</b><br><b>NO</b> |
|--|--|

## Part II - Land Use

### *Property Containing Source Area of Discharge or Release*

- |    |   |     |
|----|---|-----|
| 1. | Does the property contain one or more primary or secondary residences (permanent or temporary)?<br><br>Describe. <b>The property does not contain a primary residence.</b>  | NO  |
| 2. | Does the property contain a school, daycare center, hospital, playground, park, recreation area, church, nursing home, or other place of public assembly?<br><br>Describe. <b>The property does not contain a place of public assembly.</b>   | NO  |
| 3. | Does the property contain a commercial (e.g., retail, warehouse, office/business space, etc.) or industrial (e.g., manufacturing, utilities, industrial research and development, chemical/petroleum bulk storage, etc.) enterprise, an inactive commercial or industrial enterprise, or is the land undeveloped?<br><br>Describe. <b>The property is currently being renovated into an art studio</b>  | YES |
| 4. | Do children visit the property?<br><br>Describe. <b>Children may visit the property accompanying adults interested in the art studio.</b><br><br>Is access to the property reliably restricted consistent with its use (e.g., by fences, security personnel or both?)   | YES |
| 5. | Do pavements, buildings, or other structures cap the contaminated soil?<br><br>Describe. <b>The contaminated soil is located beneath a garage building. Currently no floor is covering the soil, however, the re-establishment of a concrete floor is planned.</b><br><br>If yes, what mechanisms are in place or can be put into place to ensure that the contaminated soil will remain capped in the foreseeable future?<br><br><b>The re-establishment of the concrete floor will insure that the contaminated soil is capped.</b> | YES |
| 6. | What is the zoning status of the property? <b>Commercial</b>  |     |
| 7. | Is the use of the property likely to change in the next 20 years?<br><br>Describe. <b>The property is part of a downtown revitalization effort and will most likely remain as a commercial art studio.</b>  | NO  |

### *Property Surrounding Source Area of Discharge or Release*

- |    |  |                   |
|----|--|-------------------|
| 1. | What is the distance from the source area of the release to the nearest primary or secondary residence (permanent or temporary)?   | 100 feet          |
| 2. | What is the distance from the source area of the release to the nearest school, daycare center, hospital, playground, park, recreation area, church, nursing home or other place of public assembly?                                     | 50 feet<br>Church |
| 3. | What is the zoning status of properties in the surrounding area?<br><b>Residential and Commercial</b>  |                   |
| 4. | Briefly characterize the use and activities of the land in the surrounding area. <b>Primary land use surrounding the site includes commercial properties, a church, and residential properties to the east. Several lots are vacant.</b> |                   |

## C. RECEPTOR INFORMATION

### 1. Water Supply Wells

Alpha Environmental Sciences, Inc. performed a surrounding water supply well survey which involved both obtaining tax maps and property owner listings of the release area. In addition, a map was obtained from the City of Asheville Water Resources Department displaying municipal water lines and availability within the 1,500 foot survey radius. A physical survey was carried out including attempting to contact each property owner and visiting the property, if possible, to determine if drinking water wells were in use at each property in question. No water supply wells were identified within the survey radius. Table 1

### 2. Public Water Supplies

City of Asheville public water is available to all residences within 1,500 ft. of the subject site. The closest water supply line runs along Roberts Street on the side of the centerline closest to the Former Roberts Hatchery Site, then runs along the centerline of Haywood Street.

### 3. Surface Water

The French Broad River is located approximately 675 feet to the west of the source area of the release.

### 4. Wellhead Protection Areas

There are no designated wellhead protection areas within 1,500 feet of the source area of the release.

### 5. Deep Aquifers of the Coastal Plain

This area does not recharge the deep aquifers of the Coastal Plain province.

### 6. Subsurface Structures

There are subsurface water and sewer lines in close proximity to the subject site (Fig. 2) along Haywood and Roberts Streets. These lines are not directly adjacent to the former UST location and groundwater most likely flows to the west, away from the direction of the subsurface lines.

### 7. Property Owners and Occupants

Table 2 lists the names and addresses for the properties contiguous to the source area. The Former Roberts Street Hatchery Site property is commercially zoned and currently being renovated into an art studio. Nearby properties to the west of Roberts Street are zoned commercial, while properties to the east of Roberts Street are mostly residentially zoned. Directly across Roberts Street from the Hatchery is the Asheville United Christian Church, a place of public assembly. Additionally, a city bus stop lies 875 ft. east of the site. To the west of the site, the French Broad River is located approximately 675 ft. away from the site.

#### D. SITE GEOLOGY AND HYDROGEOLOGY

The subject site is located within the Blue Ridge Physiographic Province of North Carolina and underlain by the Great Smoky Group (undivided). The Great Smoky Group consists primarily of micaceous metagraywacke, schist, and slate and commonly has rusty brown and greenish-yellow stains on its surface. The site sits atop an old terrace of the French Broad River, located to the west. Soils encountered during soil sample collection (11/06) and well installation (MW-1, 12/06) consisted of red and tan silty clay. Saprolitic rock was encountered at a depth of 29 feet during monitoring well installation. Groundwater was encountered during the installation of MW-1 at an approximate depth of 20.0' ft.

#### E. SAMPLING RESULTS

Contaminated soils were first confirmed to be present, in November 2006, through constituent-specific soil sample collection and analysis. Results of this sampling event were submitted to the Department on December 11, 2006 in the form of a 20-Day Report.

For this Phase 1 Limited Site Assessment, one monitoring well (MW-1) was installed on December 15, 2006 through the former UST pit. Table 5 contains monitoring well construction information. Soil samples were collected every five feet, beginning at 10.0' below ground surface (BGS), while advancing the MW-1 boring. Overall, two soil samples were collected, submitted to a NC certified laboratory, and analyzed via EPA methods 8260 and 8270 as well as Massachusetts Department of Environmental Protection (MADEP) methods for EPH and VPH. Sample WS-1 (-10') was contaminated above Industrial/Commercial Cleanup Levels for n-Butylbenzene, 1,2,4 Trimethylbenzene, and 1,3,5 Trimethylbenzene. Sample WS-1 was also above Residential Soil Cleanup Levels for 3 analytes and above Soil to Groundwater Maximum Contaminant Concentrations for 6 analytes. Conversely, sample WS-2 (-15') was below detection limits for all analyzed constituents. Table 3 contains a summary of LSA soil sampling results.

One groundwater sample (MW-1) was acquired from MW-1 on December 18, 2006. Sample MW-1 was submitted to a NC certified laboratory and analyzed via EPA methods 625 and 602 as well as MADEP methods for EPH and VPH. Groundwater sample MW-1 contained two contaminants, tetrachloroethene and trichloroethene, in concentrations exceeding NCAC 2L groundwater quality standards. See table 4 for a summary of LSA groundwater sampling results. Soil and groundwater sample locations are displayed on the attached Figures 2 and 3, respectively.

#### F. CONCLUSIONS AND RECOMMENDATIONS

Assessment guidance and risk classification criteria suggest that the site should be ranked as a Low Risk site. Observations made during monitoring well installation, along with the soil and groundwater analytical data, indicate that the detected release has impacted soils in a larger surface area and greater depth than the excavation performed during UST closure. Two out of four excavation sidewall samples and one excavation base sample submitted with the 20 Day report were above Residential Soil Cleanup Levels.

Groundwater beneath the site (20' BGS) was contaminated by two constituents, tetrachloroethene and trichloroethene, which were not present in any of the contaminated soils. Additionally, during the LSA investigation, soil samples taken beneath the former UST location were above Industrial/Commercial Soil Cleanup Levels at a depth of 10 feet below ground surface, but below detection limits at 15 feet below ground surface. Therefore, it is likely that the groundwater beneath the site has been impacted by a release from an off site source and has not been impacted by the leaking UST at the former Roberts Street Hatchery.

Since most of the contaminated soil still in place contains high levels of contamination, but is soon to be capped by a concrete slab, Alpha Environmental Sciences, Inc. recommends that a low level vent system or a biovent system be installed at the site. This vent system will accelerate natural attenuation of the soil, while keeping vapors from the contamination from building up beneath the concrete slab and in the garage.

We suggest that the site be closed after completing a notice of residual contamination. Further steps toward site closure will be directed by the NC DENR project manager.

#### **G. FREE PRODUCT INVESTIGATION**

Free product was not discovered during the soil and groundwater assessment.

#### **H. SITE HISTORY**

Please see Table 6 for updated information concerning the site history.

## I. CLOSING REMARKS

This Limited Site Assessment Report and the results found herein are limited to the specific site and the boring locations as described. However, it is a well-known fact that variation in both geology and hydrogeology may occur between boring locations and well sampling locations. It is also a well-known fact that changes in groundwater and subsurface conditions can and do occur through time. These chiefly are regarding groundwater flow velocity, groundwater elevations and changes in groundwater quality at various locations on a given site. The conclusions drawn from the data presented in this report as well as the reporting methodology are in general accordance with the existing standards and accepted hydrogeologic and environmental engineering practices in use at the current time. Should at some point in the future, changes occur which require revision of this report or the conclusions drawn from it, we reserve the right to make the necessary changes given the data showing the changes and conditions and revise the conclusions drawn from the data as may be required.

## **TABLES**



**TABLE 1**  
**WATER SUPPLY WELL INFORMATION**  
**FORMER ROBERTS STREET HATCHERY**  
**144 ROBERTS STREET, ASHEVILLE, NC 28801**  
**AES PROJECT #6620.01 - P2**

Well ID	Well Owner / User (Indicate which)	Tax Parcel Number / MapID	Address	Phone Number	Well Use	Well Depth (ft BGS)	Well Casing Depth (ft BGS)	Well Screen Interval (x to y ft BGS)	Distance from source area of release (ft)
1									
2									
3									
4									
5									
6									
7	NO WATER SUPPLY WELLS PRESENT WITHIN SURVEY RADIUS								
8									
9									
10									
11									
12									
13									
14									
15									
16									
17									
18									
19									
20									
21									
22									
23									
24									
23									



**TABLE 3**  
**SUMMARY OF SOIL ANALYTICAL RESULTS**  
**FORMER ROBERTS STREET HATCHERY**  
**144 ROBERTS STREET, ASHEVILLE, NC 28801**  
**AES PROJECT #6620.01 - P2**

*All Results Shown in mg/kg (ppm)*

Analytical Method			MADEP EPH/VPH				EPA 8260										EPA 8270				
Contaminant of Concern			C5-C8 Aliphatics	C9-C18 Aliphatics	C19-C36 Aliphatics	C9-C22 Aromatics	n-Butylbenzene	sec-Butylbenzene	Ethybenzene	Isopropylbenzene (Cumene)	p-Isopropyltoluene	Naphthalene	n-Propylbenzene	1,1,2,2-Tetrachloroethane	1,2,4-Trimethylbenzene	1,3,5-Trimethylbenzene	Xylenes (Total)	All Other Constituents are Non-Detect	1-Methylnaphthalene	2-Methylnaphthalene	All Other Constituents are Non-Detect
Sample ID	Date Collected (m/dd/yy)	Sample Depth (ft BGS)																			
WS-1	12/15/2006	10	ND	289	45	158	740	550	390	280	1300	8300	550	360	5300	1700	3000	ND	6800	7800	ND
WS-2	12/15/2006	15	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Soil to Groundwater MSCC (mg/kg)			72	3255	Considered Immobile	34	4.3	3.3	4.6	1.7	NL	0.58	107	0.001	7.5	7.3	5	N/A	NL	1.7	N/A
Residential Soil Cleanup Levels (mg/kg)			939	9386	93860	469	626	626	1560	1564	NL	313	626	3	782	782	3129	N/A	NL	63	N/A
Industrial/Commercial Soil Cleanup Levels			24528	245280	Health-Based Level > 100%	12264	16350	16350	40000	40880	NL	8176	16350	28	20440	20440	81760	N/A	NL	1635	N/A

*Key*

	Above Soil to Groundwater MSCC
	Above Residential Soil Cleanup Levels
	Above Industrial/Commercial Soil Cleanup Levels

ND Not Detected

NL Not Listed

N/A Not Applicable



**TABLE 4**  
**SUMMARY OF GROUNDWATER ANALYTICAL RESULTS**  
**FORMER ROBERTS STREET HATCHERY**  
**144 ROBERTS STREET, ASHEVILLE, NC 28801**  
**AES PROJECT #6620.01 - P2**

Analytical Method		EPA 625, EPA 602			MADEP VPH/EPH
Contaminant of Concern		Tetrachloroethene	Trichloroethene	All Other Constituents	All Constituents
Monitoring Well Locations	Date Collected (m/dd/yy)				
MW-1	12/18/2006	48	2.9	ND	ND
2L Standard (ug/l)		0.7	2.8	N/A	N/A
GCL (ug/l)		700	2800	N/A	N/A

*Key*

Exceeds 2L Standard
Exceeds 2L Standard by a factor of 10
Non-Detect
Not Listed
Not Applicable



**TABLE 5**  
**WELL CONSTRUCTION INFORMATION**  
**FORMER ROBERTS STREET HATCHERY**  
**144 ROBERTS STREET, ASHEVILLE, NC 28801**  
**AES PROJECT #6620.01 - P2**

Groundwater Potentiometric Data	Date Installed (m/dd/yy)	Date Water Level Measured (m/dd/yy)	Well Casing Depth (ft. BGS)	Screened Interval (x to y ft. BGS)	Bottom of Well (ft. BGS)	Top of Casing Elevation* (ft.)	Depth to Water from Top of Casing (ft.)	Free Product Thickness ** (ft.)	Groundwater Elevation* (ft.)	Comments
MW-1	12/15/2006	12/15/2006	13.0	13.0-28.0	28	100.00	20.00		80.00	

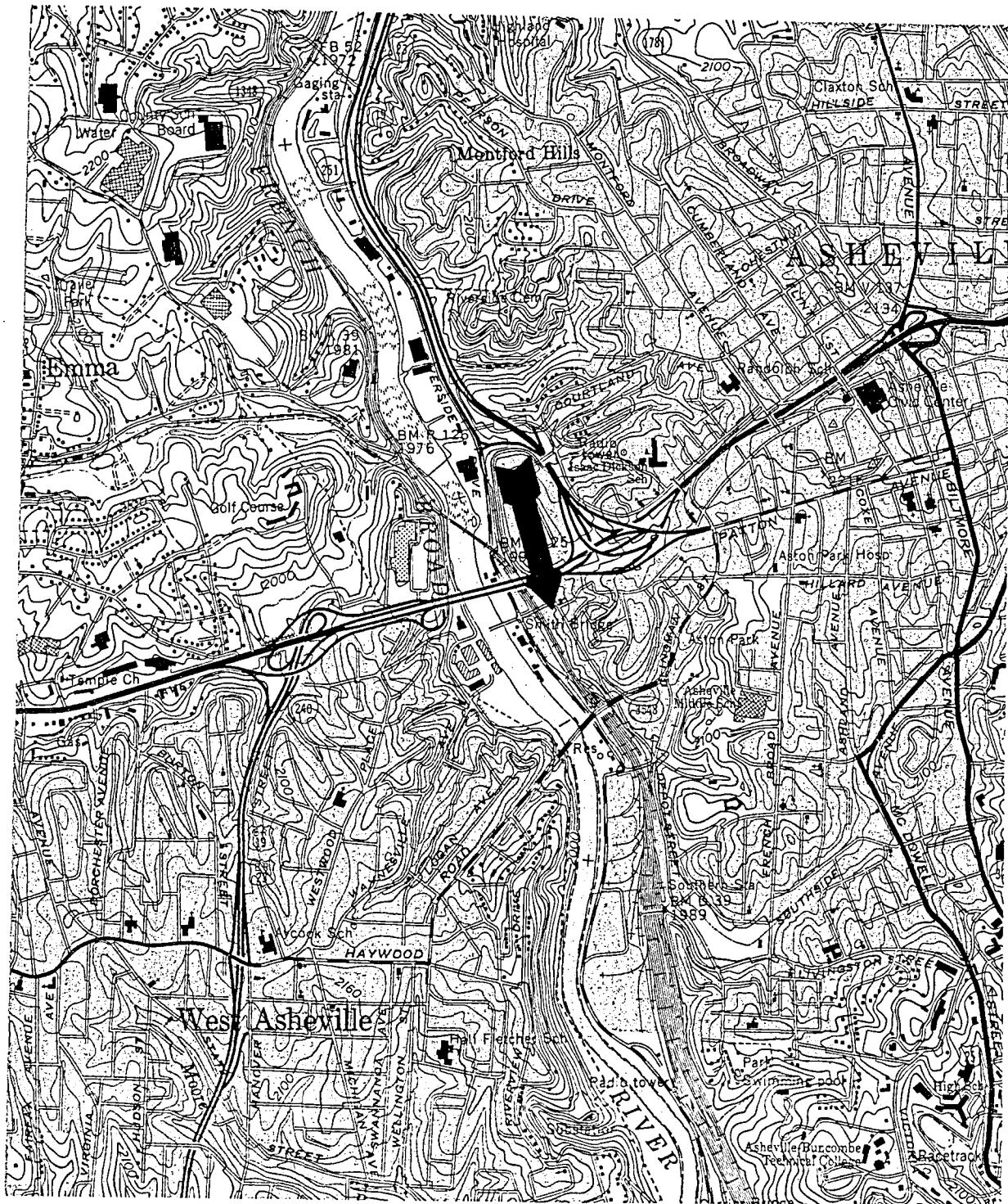


**TABLE 6**  
**SITE HISTORY - UST SYSTEM INFORMATION**  
**FORMER ROBERTS STREET HATCHERY**  
**144 ROBERTS STREET, ASHEVILLE, NC 28801**  
**AES PROJECT #6620.01 - P2**

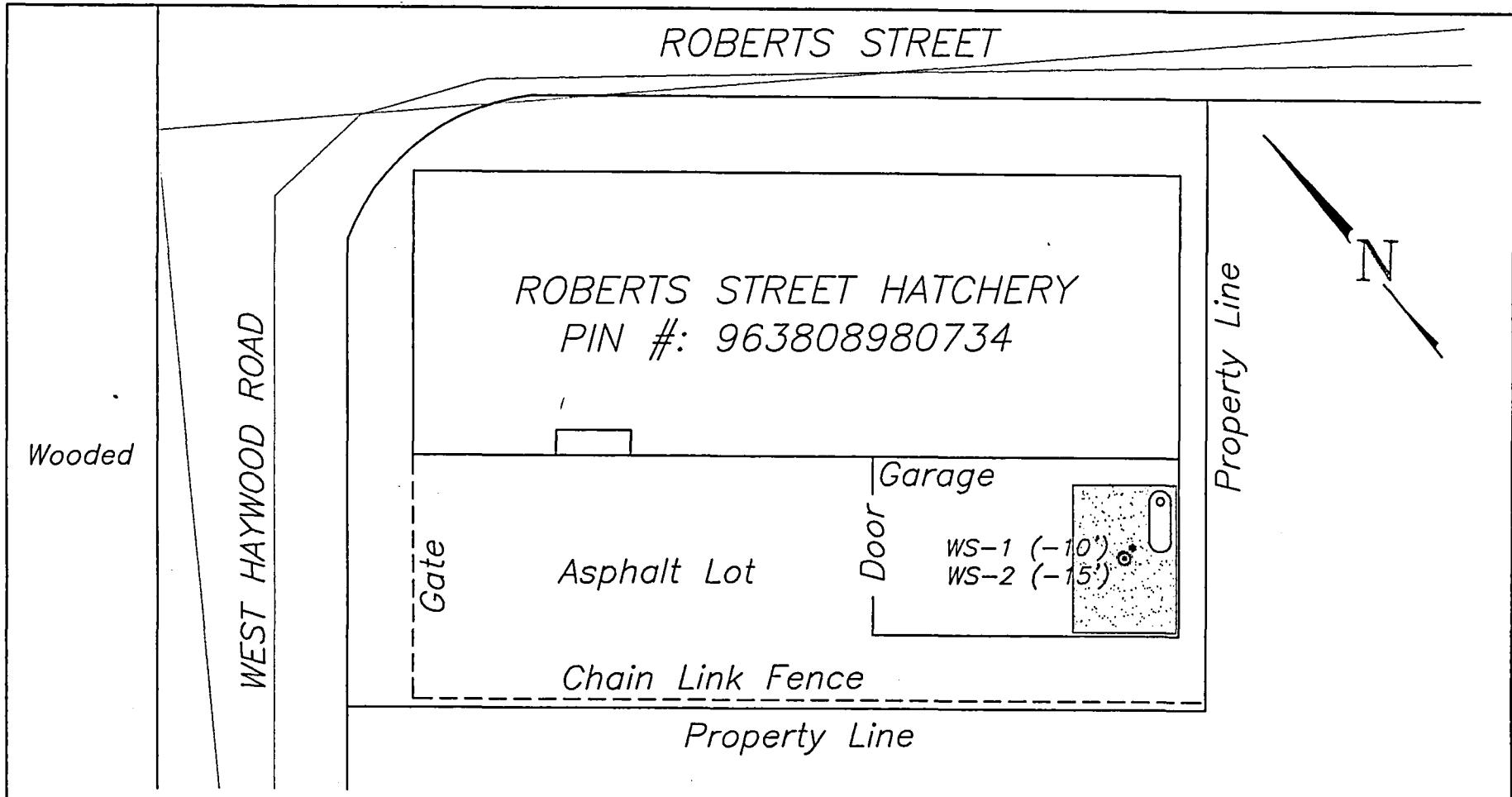
UST ID	PRODUCT (gasoline, diesel, jet fuel, etc.)	CAPACITY (gallons)	DATE INSTALLED (m/dd/yy)	DATE PERMANENTLY CLOSED (P), OR STILL IN USE (C) (m/dd/yy)	WAS RELEASE ASSOCIATED WITH UST SYSTEM? (Yes/No)
N/A	Fuel-oil	1,000	Unknown	11/6/06 (P)	YES



## FIGURES



Roberts Street Hatchery 144 Roberts Street, Asheville, NC	
Site Location Map	
AES #6534.01	
USGS	ALPHA Environmental Sciences, Inc.
Scale: 1" = 2000'	
DATE: 12/4/06	FIGURE 1



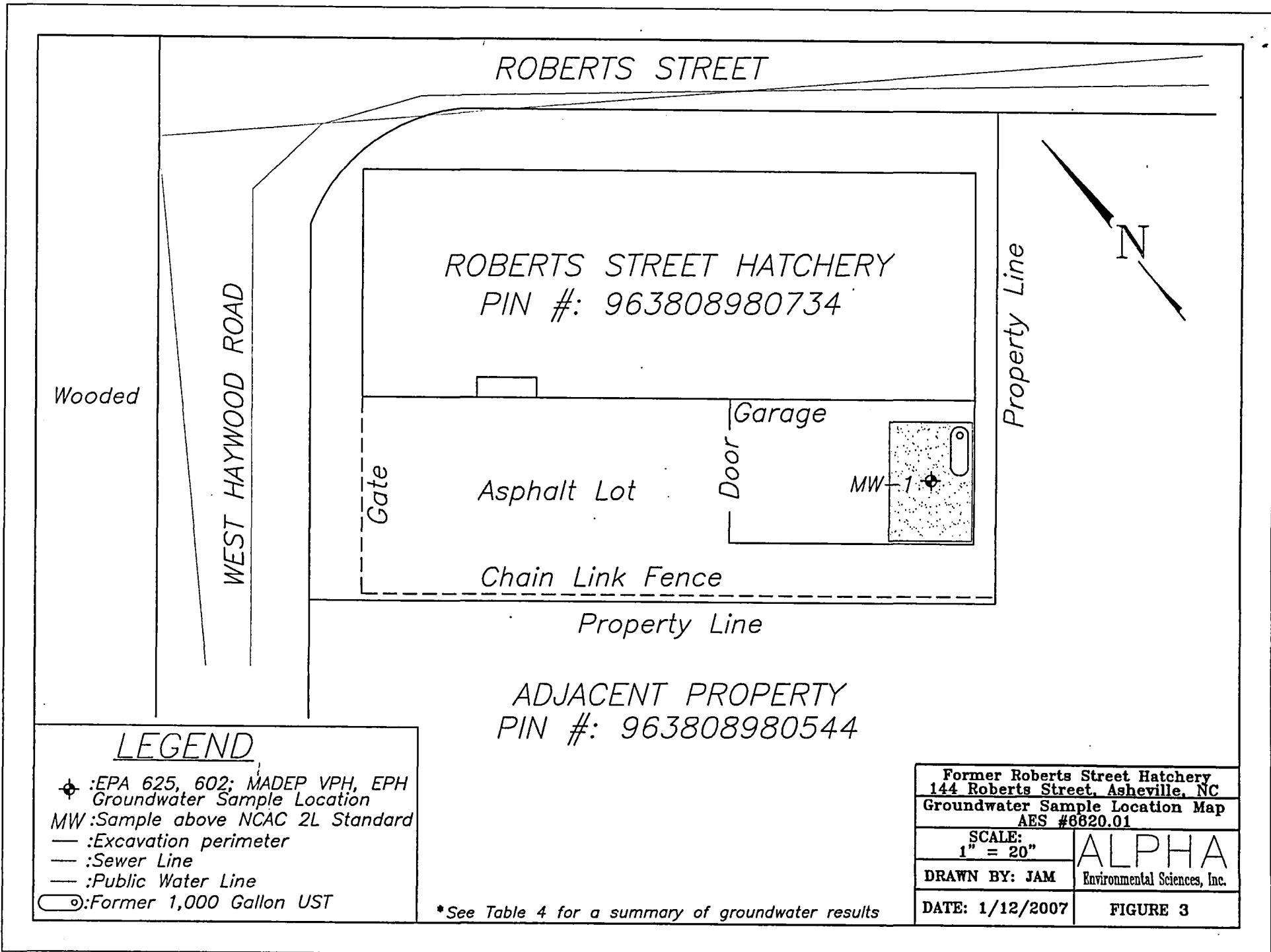
### LEGEND

- :EPA 8260, 8270, VPH, EPH  
Soil Sample Location
- WS :Sample above Industrial/Commercial  
Soil Cleanup Levels
- WS :Sample below detection levels
- :Excavation perimeter
- :Sewer Line
- :Public Water Line
- (o) :Former 1,000 Gallon UST

ADJACENT PROPERTY  
PIN #: 963808980544

\*Both samples were taken from the same boring  
See Table 3 for a summary of soil analytical results

Former Roberts Street Hatchery 144 Roberts Street, Asheville, NC	Soil Sample Location Map AES #6820.01
SCALE: 1" = 20"	ALPHA
DRAWN BY: JAM	Environmental Sciences, Inc.
DATE: 1/12/2007	FIGURE 2





## **ANALYTICAL DATA**

December 29, 2006

Mr. M. Rosone  
Alpha Environmental Sciences  
367 Dellwood Rd.  
Waynesville, NC 28786

RE: Lab Project Number: 92134250  
Client Project ID: Hatch 6620.01

Dear Mr. Rosone:

Enclosed are the analytical results for sample(s) received by the laboratory on December 15, 2006. Results reported herein conform to the most current NELAC standards, where applicable, unless otherwise narrated in the body of the report.

Inorganic Wet Chemistry and Metals Analyses were performed at our Pace Asheville laboratory and Organic testing was performed at our Pace Charlotte laboratory unless otherwise footnoted.

If you have any questions concerning this report please feel free to contact me.

Sincerely,

Lorri Patton  
lorri.patton@pacelabs.com  
(828) 254-7176  
Project Manager

Enclosures

Asheville Certification IDs  
NC Wastewater 40  
NC Drinking Water 37712  
SC Environmental 99030  
FL NELAP E87648

#### REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,  
without the written consent of Pace Analytical Services, Inc.



Charlotte Certification IDs  
NC Wastewater 12  
NC Drinking Water 37706  
SC 99006  
FL NELAP E87627

Lab Project Number: 92134250  
Client Project ID: Hatch 6620.01

Solid results are reported on a dry weight basis

Lab Sample No:	927799312	Project Sample Number:	92134250-001	Date Collected:	12/15/06 10:00
Client Sample ID:	WS1-10	Matrix:	Soil	Date Received:	12/15/06 14:47

Parameters	Results	Units	Report Limit	Analyzed By	CAS No.	Qual	RegLmt
------------	---------	-------	--------------	-------------	---------	------	--------

**Wet Chemistry**

Percent Moisture	Method: % Moisture
Percent Moisture	17.6 %
	12/18/06 11:21 KDF

**GC/MS Semivolatiles**

**Semivolatile Organics**

	Prep/Method: EPA 3545 / EPA 8270					
Acenaphthene	ND	ug/kg	2000	12/22/06 08:57 BET	83-32-9	
Acenaphthylene	ND	ug/kg	2000	12/22/06 08:57 BET	208-96-8	
Anthracene	ND	ug/kg	2000	12/22/06 08:57 BET	120-12-7	
Benzo(k)fluoranthene	ND	ug/kg	2000	12/22/06 08:57 BET	207-08-9	
Benzo(b)fluoranthene	ND	ug/kg	2000	12/22/06 08:57 BET	205-99-2	
Benzo(a)anthracene	ND	ug/kg	2000	12/22/06 08:57 BET	56-55-3	
Benzoic acid	ND	ug/kg	10000	12/22/06 08:57 BET	65-85-0	
Benzo(g,h,i)perylene	ND	ug/kg	2000	12/22/06 08:57 BET	191-24-2	
Benzyl alcohol	ND	ug/kg	4000	12/22/06 08:57 BET	100-51-6	
Benzo(a)pyrene	ND	ug/kg	2000	12/22/06 08:57 BET	50-32-8	
4-Bromophenylphenyl ether	ND	ug/kg	2000	12/22/06 08:57 BET	101-55-3	
Butylbenzylphthalate	ND	ug/kg	2000	12/22/06 08:57 BET	85-68-7	
4-Chloro-3-methylphenol	ND	ug/kg	4000	12/22/06 08:57 BET	59-50-7	
4-Chloroaniline	ND	ug/kg	4000	12/22/06 08:57 BET	106-47-8	
bis(2-Chloroethoxy)methane	ND	ug/kg	2000	12/22/06 08:57 BET	111-91-1	
bis(2-Chloroethyl) ether	ND	ug/kg	2000	12/22/06 08:57 BET	111-44-4	
bis(2-Chloroisopropyl) ether	ND	ug/kg	2000	12/22/06 08:57 BET	39638-32-9	
2-Chloronaphthalene	ND	ug/kg	2000	12/22/06 08:57 BET	91-58-7	
2-Chlorophenol	ND	ug/kg	2000	12/22/06 08:57 BET	95-57-8	
4-Chlorophenylphenyl ether	ND	ug/kg	2000	12/22/06 08:57 BET	7005-72-3	
Chrysene	ND	ug/kg	2000	12/22/06 08:57 BET	218-01-9	
Dibenz(a,h)anthracene	ND	ug/kg	2000	12/22/06 08:57 BET	53-70-3	
Dibenzofuran	ND	ug/kg	2000	12/22/06 08:57 BET	132-64-9	
1,2-Dichlorobenzene	ND	ug/kg	2000	12/22/06 08:57 BET	95-50-1	
1,3-Dichlorobenzene	ND	ug/kg	2000	12/22/06 08:57 BET	541-73-1	
1,4-Dichlorobenzene	ND	ug/kg	2000	12/22/06 08:57 BET	106-46-7	
3,3'-Dichlorobenzidine	ND	ug/kg	4000	12/22/06 08:57 BET	91-94-1	
2,4-Dichlorophenol	ND	ug/kg	2000	12/22/06 08:57 BET	120-83-2	
Diethylphthalate	ND	ug/kg	2000	12/22/06 08:57 BET	84-66-2	
2,4-Dimethylphenol	ND	ug/kg	2000	12/22/06 08:57 BET	105-67-9	
Dimethylphthalate	ND	ug/kg	2000	12/22/06 08:57 BET	131-11-3	
Di-n-butylphthalate	ND	ug/kg	2000	12/22/06 08:57 BET	84-74-2	

Date: 12/29/06

Page: 1 of 25

Asheville Certification IDs  
 NC Wastewater 40  
 NC Drinking Water 37712  
 SC Environmental 99030  
 FL NELAP E87648

**REPORT OF LABORATORY ANALYSIS**

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Charlotte Certification IDs  
 NC Wastewater 12  
 NC Drinking Water 37706  
 SC 99006  
 FL NELAP E87627

Lab Project Number: 92134250  
 Client Project ID: Hatch 6620.01

Lab Sample No:	927799312	Project Sample Number:	92134250-001	Date Collected:	12/15/06 10:00
Client Sample ID:	WS1-10	Matrix:	Soil	Date Received:	12/15/06 14:47

Parameters	Results	Units	Report Limit	Analyzed By	CAS No.	Qual	RegLmt
4,6-Dinitro-2-methylphenol	ND	ug/kg	2000	12/22/06 08:57 BET	534-52-1		
2,4-Dinitrophenol	ND	ug/kg	10000	12/22/06 08:57 BET	51-28-5		
2,4-Dinitrotoluene	ND	ug/kg	2000	12/22/06 08:57 BET	121-14-2		
2,6-Dinitrotoluene	ND	ug/kg	2000	12/22/06 08:57 BET	606-20-2		
Di-n-octylphthalate	ND	ug/kg	2000	12/22/06 08:57 BET	117-84-0		
1,2-Diphenylhydrazine	ND	ug/kg	2000	12/22/06 08:57 BET	122-66-7		
bis(2-Ethylhexyl)phthalate	ND	ug/kg	2000	12/22/06 08:57 BET	117-81-7		
Fluoranthene	ND	ug/kg	2000	12/22/06 08:57 BET	206-44-0		
Fluorene	ND	ug/kg	2000	12/22/06 08:57 BET	86-73-7		
Hexachloro-1,3-butadiene	ND	ug/kg	2000	12/22/06 08:57 BET	87-68-3		
Hexachlorobenzene	ND	ug/kg	2000	12/22/06 08:57 BET	118-74-1		
Hexachlorocyclopentadiene	ND	ug/kg	2000	12/22/06 08:57 BET	77-47-4		
Hexachloroethane	ND	ug/kg	2000	12/22/06 08:57 BET	67-72-1		
Indeno(1,2,3-cd)pyrene	ND	ug/kg	2000	12/22/06 08:57 BET	193-39-5		
Isophorone	ND	ug/kg	2000	12/22/06 08:57 BET	78-59-1		
1-Methylnaphthalene	6800	ug/kg	2000	12/22/06 08:57 BET	90-12-0		
2-Methylnaphthalene	7800	ug/kg	2000	12/22/06 08:57 BET	91-57-6		
2-Methylphenol (o-Cresol)	ND	ug/kg	2000	12/22/06 08:57 BET	95-48-7		
3&4-Methylphenol	ND	ug/kg	2000	12/22/06 08:57 BET			
Naphthalene	ND	ug/kg	2000	12/22/06 08:57 BET	91-20-3		
2-Nitroaniline	ND	ug/kg	10000	12/22/06 08:57 BET	88-74-4		
3-Nitroaniline	ND	ug/kg	10000	12/22/06 08:57 BET	99-09-2		
4-Nitroaniline	ND	ug/kg	10000	12/22/06 08:57 BET	100-01-6		
Nitrobenzene	ND	ug/kg	2000	12/22/06 08:57 BET	98-95-3		
2-Nitrophenol	ND	ug/kg	2000	12/22/06 08:57 BET	88-75-5		
4-Nitrophenol	ND	ug/kg	10000	12/22/06 08:57 BET	100-02-7		
N-Nitroso-di-n-propylamine	ND	ug/kg	2000	12/22/06 08:57 BET	621-64-7		
N-Nitrosodiphenylamine	ND	ug/kg	2000	12/22/06 08:57 BET	86-30-6		
Pentachlorophenol	ND	ug/kg	10000	12/22/06 08:57 BET	87-86-5		
Phenanthrene	ND	ug/kg	2000	12/22/06 08:57 BET	85-01-8		
Phenol	ND	ug/kg	2000	12/22/06 08:57 BET	108-95-2		
Pyrene	ND	ug/kg	2000	12/22/06 08:57 BET	129-00-0		
1,2,4-Trichlorobenzene	ND	ug/kg	2000	12/22/06 08:57 BET	120-82-1		
2,4,5-Trichlorophenol	ND	ug/kg	2000	12/22/06 08:57 BET	95-95-4		
2,4,6-Trichlorophenol	ND	ug/kg	2000	12/22/06 08:57 BET	88-06-2		
Nitrobenzene-d5 (S)	25	%		12/22/06 08:57 BET	4165-60-0		
2-Fluorobiphenyl (S)	47	%		12/22/06 08:57 BET	321-60-8		
Terphenyl-d14 (S)	72	%		12/22/06 08:57 BET	1718-51-0		
Phenol-d5 (S)	50	%		12/22/06 08:57 BET	4165-62-2		

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Charlotte Certification IDs  
 NC Wastewater 12  
 NC Drinking Water 37706  
 SC 99006  
 FL NELAP E87627

**Lab Project Number: 92134250**  
**Client Project ID: Hatch 6620.01**

Lab Sample No: 927799312	Project Sample Number: 92134250-001	Date Collected: 12/15/06 10:00
Client Sample ID: WS1-10	Matrix: Soil	Date Received: 12/15/06 14:47

Parameters	Results	Units	Report Limit	Analyzed By	CAS No.	Qual	RegLmt
2-Fluorophenol (S)	46	%		12/22/06 08:57 BET	367-12-4		
2,4,6-Tribromophenol (S)	57	%		12/22/06 08:57 BET	118-79-6	1	
Date Extracted	12/19/06			12/19/06			

#### GC Semivolatiles

EPH in Soil by Mass. Method	Prep/Method: EPA 3545 / EPH		
Aliphatic (C9-C18)	210 mg/kg	12.	12/20/06 03:48 MGB
Aliphatic (C19-C36)	45. mg/kg	12.	12/20/06 03:48 MGB
Aromatic (C11-C22)	18. mg/kg	12.	12/20/06 03:48 MGB
Nonatriacontane (S)	65 %		12/20/06 03:48 MGB 7194-86-7
o-Terphenyl (S)	179 %		12/20/06 03:48 MGB 84-15-1 2
2-Fluorobiphenyl (S)	161 %		12/20/06 03:48 MGB 321-60-8 2
2-Bromonaphthalene (S)	318 %		12/20/06 03:48 MGB 580-13-2 2
Date Extracted	12/18/06 17:00		12/18/06 17:00

#### GC Volatiles

VPH in Soil by Mass. Method	Method: VPH		
Aliphatic (C5-C8)	ND mg/kg	8.7	12/19/06 02:05 DHW
Aliphatic (C9-C12)	79. mg/kg	8.7	12/19/06 02:05 DHW
Aromatic (C9-C10)	140 mg/kg	8.7	12/19/06 02:05 DHW
2,5-Dibromotoluene (PID) (S)	73 %		12/19/06 02:05 DHW
2,5-Dibromotoluene (FID) (S)	84 %		12/19/06 02:05 DHW

#### GC/MS Volatiles

GC/MS VOCs 5035/8260 low level	Method: EPA 8260		
Acetone	ND ug/kg	4500	12/22/06 19:03 DLK 67-64-1
Benzene	ND ug/kg	230	12/22/06 19:03 DLK 71-43-2
Bromobenzene	ND ug/kg	230	12/22/06 19:03 DLK 108-86-1
Bromochloromethane	ND ug/kg	230	12/22/06 19:03 DLK 74-97-5
Bromodichloromethane	ND ug/kg	230	12/22/06 19:03 DLK 75-27-4
Bromoform	ND ug/kg	230	12/22/06 19:03 DLK 75-25-2
Bromomethane	ND ug/kg	450	12/22/06 19:03 DLK 74-83-9
2-Butanone (MEK)	ND ug/kg	4500	12/22/06 19:03 DLK 78-93-3
n-Butylbenzene	740 ug/kg	230	12/22/06 19:03 DLK 104-51-8
sec-Butylbenzene	550 ug/kg	230	12/22/06 19:03 DLK 135-98-8
tert-Butylbenzene	ND ug/kg	230	12/22/06 19:03 DLK 98-06-6
Carbon tetrachloride	ND ug/kg	230	12/22/06 19:03 DLK 56-23-5
Chlorobenzene	ND ug/kg	230	12/22/06 19:03 DLK 108-90-7
Chloroethane	ND ug/kg	450	12/22/06 19:03 DLK 75-00-3

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 SC 99006  
 FL NELAP E87627

Lab Project Number: 92134250  
 Client Project ID: Hatch 6620.01

Lab Sample No:	927799312	Project Sample Number:	92134250-001	Date Collected:	12/15/06 10:00
Client Sample ID:	WS1-10	Matrix:	Soil	Date Received:	12/15/06 14:47

Parameters	Results	Units	Report Limit	Analyzed By	CAS No.	Qual	RegLmt
Chloroform	ND	ug/kg	230	12/22/06 19:03 DLK	67-66-3		
Chloromethane	ND	ug/kg	450	12/22/06 19:03 DLK	74-87-3		
2-Chlorotoluene	ND	ug/kg	230	12/22/06 19:03 DLK	95-49-8		
4-Chlorotoluene	ND	ug/kg	230	12/22/06 19:03 DLK	106-43-4		
1,2-Dibromo-3-chloropropane	ND	ug/kg	230	12/22/06 19:03 DLK	96-12-8		
Dibromochloromethane	ND	ug/kg	230	12/22/06 19:03 DLK	124-48-1		
1,2-Dibromoethane (EDB)	ND	ug/kg	230	12/22/06 19:03 DLK	106-93-4		
Dibromomethane	ND	ug/kg	230	12/22/06 19:03 DLK	74-95-3		
1,2-Dichlorobenzene	ND	ug/kg	230	12/22/06 19:03 DLK	95-50-1		
1,3-Dichlorobenzene	ND	ug/kg	230	12/22/06 19:03 DLK	541-73-1		
1,4-Dichlorobenzene	ND	ug/kg	230	12/22/06 19:03 DLK	106-46-7		
Dichlorodifluoromethane	ND	ug/kg	450	12/22/06 19:03 DLK	75-71-8		
1,1-Dichloroethane	ND	ug/kg	230	12/22/06 19:03 DLK	75-34-3		
1,2-Dichloroethane	ND	ug/kg	230	12/22/06 19:03 DLK	107-06-2		
1,1-Dichloroethene	ND	ug/kg	230	12/22/06 19:03 DLK	75-35-4		
cis-1,2-Dichloroethene	ND	ug/kg	230	12/22/06 19:03 DLK	156-59-2		
trans-1,2-Dichloroethene	ND	ug/kg	230	12/22/06 19:03 DLK	156-60-5		
1,2-Dichloropropane	ND	ug/kg	230	12/22/06 19:03 DLK	78-87-5		
1,3-Dichloropropane	ND	ug/kg	230	12/22/06 19:03 DLK	142-28-9		
2,2-Dichloropropane	ND	ug/kg	230	12/22/06 19:03 DLK	594-20-7		
1,1-Dichloropropene	ND	ug/kg	230	12/22/06 19:03 DLK	563-58-6		
cis-1,3-Dichloropropene	ND	ug/kg	230	12/22/06 19:03 DLK	10061-01-5		
trans-1,3-Dichloropropene	ND	ug/kg	230	12/22/06 19:03 DLK	10061-02-6		
Diisopropyl ether	ND	ug/kg	230	12/22/06 19:03 DLK	108-20-3		
Ethylbenzene	390	ug/kg	230	12/22/06 19:03 DLK	100-41-4		
Hexachloro-1,3-butadiene	ND	ug/kg	230	12/22/06 19:03 DLK	87-68-3		
2-Hexanone	ND	ug/kg	2300	12/22/06 19:03 DLK	591-78-6		
Isopropylbenzene (Cumene)	280	ug/kg	230	12/22/06 19:03 DLK	98-82-8		
p-Isopropyltoluene	1300	ug/kg	230	12/22/06 19:03 DLK	99-87-6		
Methylene chloride	ND	ug/kg	230	12/22/06 19:03 DLK	75-09-2		
4-Methyl-2-pentanone (MIBK)	ND	ug/kg	2300	12/22/06 19:03 DLK	108-10-1		
Methyl-tert-butyl ether	ND	ug/kg	230	12/22/06 19:03 DLK	1634-04-4		
Naphthalene	8300	ug/kg	230	12/22/06 19:03 DLK	91-20-3		
n-Propylbenzene	550	ug/kg	230	12/22/06 19:03 DLK	103-65-1		
Styrene	ND	ug/kg	230	12/22/06 19:03 DLK	100-42-5		
1,1,1,2-Tetrachloroethane	ND	ug/kg	230	12/22/06 19:03 DLK	630-20-6		
1,1,2,2-Tetrachloroethane	360	ug/kg	230	12/22/06 19:03 DLK	79-34-5		
Tetrachloroethene	ND	ug/kg	230	12/22/06 19:03 DLK	127-18-4		
Toluene	ND	ug/kg	230	12/22/06 19:03 DLK	108-88-3		

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 SC 99006  
 FL NELAP E87627

Lab Project Number: 92134250  
Client Project ID: Hatch 6620.01

Lab Sample No: 927799312	Project Sample Number: 92134250-001	Date Collected: 12/15/06 10:00
Client Sample ID: WS1-10	Matrix: Soil	Date Received: 12/15/06 14:47

Parameters	Results	Units	Report Limit	Analyzed By	CAS No.	Qual	ReqLmt
1,2,3-Trichlorobenzene	ND	ug/kg	230	12/22/06 19:03	DLK	87-61-6	
1,2,4-Trichlorobenzene	ND	ug/kg	230	12/22/06 19:03	DLK	120-82-1	
1,1,1-Trichloroethane	ND	ug/kg	230	12/22/06 19:03	DLK	71-55-6	
1,1,2-Trichloroethane	ND	ug/kg	230	12/22/06 19:03	DLK	79-00-5	
Trichloroethene	ND	ug/kg	230	12/22/06 19:03	DLK	79-01-6	
Trichlorofluoromethane	ND	ug/kg	230	12/22/06 19:03	DLK	75-69-4	
1,2,3-Trichloropropane	ND	ug/kg	230	12/22/06 19:03	DLK	96-18-4	
1,2,4-Trimethylbenzene	5300	ug/kg	230	12/22/06 19:03	DLK	95-63-6	
1,3,5-Trimethylbenzene	1700	ug/kg	230	12/22/06 19:03	DLK	108-67-8	
Vinyl acetate	ND	ug/kg	2300	12/22/06 19:03	DLK	108-05-4	
Vinyl chloride	ND	ug/kg	450	12/22/06 19:03	DLK	75-01-4	
m&p-Xylene	1600	ug/kg	450	12/22/06 19:03	DLK		
o-Xylene	1400	ug/kg	230	12/22/06 19:03	DLK	95-47-6	
Toluene-d8 (S)	102	%		12/22/06 19:03	DLK	2037-26-5	
4-Bromofluorobenzene (S)	102	%		12/22/06 19:03	DLK	460-00-4	
Dibromofluoromethane (S)	101	%		12/22/06 19:03	DLK	1868-53-7	
1,2-Dichloroethane-d4 (S)	96	%		12/22/06 19:03	DLK	17060-07-0	

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Lab Project Number: 92134250  
Client Project ID: Hatch 6620.01

Lab Sample No: 927799320	Project Sample Number: 92134250-002	Date Collected: 12/15/06 10:30
Client Sample ID: WS2-15	Matrix: Soil	Date Received: 12/15/06 14:47

Parameters	Results	Units	Report Limit	Analyzed By	CAS No.	Qual	RegLmt
Wet Chemistry							
Percent Moisture	Method: % Moisture						
Percent Moisture	14.3	%		12/18/06 11:21 KDF			

#### GC/MS Semivolatiles

##### Semivolatile Organics

	Prep/Method:	EPA 3545 / EPA 8270					
Acenaphthene	ND	ug/kg	390	12/20/06 19:31 BET	83-32-9		
Acenaphthylene	ND	ug/kg	390	12/20/06 19:31 BET	208-96-8		
Anthracene	ND	ug/kg	390	12/20/06 19:31 BET	120-12-7		
Benzo(k)fluoranthene	ND	ug/kg	390	12/20/06 19:31 BET	207-08-9		
Benzo(b)fluoranthene	ND	ug/kg	390	12/20/06 19:31 BET	205-99-2		
Benzo(a)anthracene	ND	ug/kg	390	12/20/06 19:31 BET	56-55-3		
Benzoic acid	ND	ug/kg	1900	12/20/06 19:31 BET	65-85-0		
Benzo(g,h,i)perylene	ND	ug/kg	390	12/20/06 19:31 BET	191-24-2		
Benzyl alcohol	ND	ug/kg	770	12/20/06 19:31 BET	100-51-6		
Benzo(a)pyrene	ND	ug/kg	390	12/20/06 19:31 BET	50-32-8		
4-Bromophenylphenyl ether	ND	ug/kg	390	12/20/06 19:31 BET	101-55-3		
Butylbenzylphthalate	ND	ug/kg	390	12/20/06 19:31 BET	85-68-7		
4-Chloro-3-methylphenol	ND	ug/kg	770	12/20/06 19:31 BET	59-50-7		
4-Chloroaniline	ND	ug/kg	770	12/20/06 19:31 BET	106-47-8		
bis(2-Chloroethoxy)methane	ND	ug/kg	390	12/20/06 19:31 BET	111-91-1		
bis(2-Chloroethyl) ether	ND	ug/kg	390	12/20/06 19:31 BET	111-44-4		
bis(2-Chloroisopropyl) ether	ND	ug/kg	390	12/20/06 19:31 BET	39638-32-9		
2-Chloronaphthalene	ND	ug/kg	390	12/20/06 19:31 BET	91-58-7		
2-Chlorophenol	ND	ug/kg	390	12/20/06 19:31 BET	95-57-8		
4-Chlorophenylphenyl ether	ND	ug/kg	390	12/20/06 19:31 BET	7005-72-3		
Chrysene	ND	ug/kg	390	12/20/06 19:31 BET	218-01-9		
Dibenz(a,h)anthracene	ND	ug/kg	390	12/20/06 19:31 BET	53-70-3		
Dibenzofuran	ND	ug/kg	390	12/20/06 19:31 BET	132-64-9		
1,2-Dichlorobenzene	ND	ug/kg	390	12/20/06 19:31 BET	95-50-1		
1,3-Dichlorobenzene	ND	ug/kg	390	12/20/06 19:31 BET	541-73-1		
1,4-Dichlorobenzene	ND	ug/kg	390	12/20/06 19:31 BET	106-46-7		
3,3'-Dichlorobenzidine	ND	ug/kg	770	12/20/06 19:31 BET	91-94-1		
2,4-Dichlorophenol	ND	ug/kg	390	12/20/06 19:31 BET	120-83-2		
Diethylphthalate	ND	ug/kg	390	12/20/06 19:31 BET	84-66-2		
2,4-Dimethylphenol	ND	ug/kg	390	12/20/06 19:31 BET	105-67-9		
Dimethylphthalate	ND	ug/kg	390	12/20/06 19:31 BET	131-11-3		
Di-n-butylphthalate	ND	ug/kg	390	12/20/06 19:31 BET	84-74-2		
4,6-Dinitro-2-methylphenol	ND	ug/kg	390	12/20/06 19:31 BET	534-52-1		

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 FL NELAP E87627

Lab Project Number: 92134250  
 Client Project ID: Hatch 6620.01

Lab Sample No: 927799320	Project Sample Number: 92134250-002	Date Collected: 12/15/06 10:30
Client Sample ID: WS2-15	Matrix: Soil	Date Received: 12/15/06 14:47

Parameters	Results	Units	Report Limit	Analyzed By	CAS No.	Qual	RegLmt
2,4-Dinitrophenol	ND	ug/kg	1900	12/20/06 19:31 BET	51-28-5		
2,4-Dinitrotoluene	ND	ug/kg	390	12/20/06 19:31 BET	121-14-2		
2,6-Dinitrotoluene	ND	ug/kg	390	12/20/06 19:31 BET	606-20-2		
Di-n-octylphthalate	ND	ug/kg	390	12/20/06 19:31 BET	117-84-0		
1,2-Diphenylhydrazine	ND	ug/kg	390	12/20/06 19:31 BET	122-66-7		
bis(2-Ethylhexyl)phthalate	ND	ug/kg	390	12/20/06 19:31 BET	117-81-7		
Fluoranthene	ND	ug/kg	390	12/20/06 19:31 BET	206-44-0		
Fluorene	ND	ug/kg	390	12/20/06 19:31 BET	86-73-7		
Hexachloro-1,3-butadiene	ND	ug/kg	390	12/20/06 19:31 BET	87-68-3		
Hexachlorobenzene	ND	ug/kg	390	12/20/06 19:31 BET	118-74-1		
Hexachlorocyclopentadiene	ND	ug/kg	390	12/20/06 19:31 BET	77-47-4		
Hexachloroethane	ND	ug/kg	390	12/20/06 19:31 BET	67-72-1		
Indeno(1,2,3-cd)pyrene	ND	ug/kg	390	12/20/06 19:31 BET	193-39-5		
Isophorone	ND	ug/kg	390	12/20/06 19:31 BET	78-59-1		
1-Methylnaphthalene	ND	ug/kg	390	12/20/06 19:31 BET	90-12-0		
2-Methylnaphthalene	ND	ug/kg	390	12/20/06 19:31 BET	91-57-6		
2-Methylphenol (o-Cresol)	ND	ug/kg	390	12/20/06 19:31 BET	95-48-7		
3&4-Methylphenol	ND	ug/kg	390	12/20/06 19:31 BET			
Naphthalene	ND	ug/kg	390	12/20/06 19:31 BET	91-20-3		
2-Nitroaniline	ND	ug/kg	1900	12/20/06 19:31 BET	88-74-4		
3-Nitroaniline	ND	ug/kg	1900	12/20/06 19:31 BET	99-09-2		
4-Nitroaniline	ND	ug/kg	1900	12/20/06 19:31 BET	100-01-6		
Nitrobenzene	ND	ug/kg	390	12/20/06 19:31 BET	98-95-3		
2-Nitrophenol	ND	ug/kg	390	12/20/06 19:31 BET	88-75-5		
4-Nitrophenol	ND	ug/kg	1900	12/20/06 19:31 BET	100-02-7		
N-Nitroso-di-n-propylamine	ND	ug/kg	390	12/20/06 19:31 BET	621-64-7		
N-Nitrosodiphenylamine	ND	ug/kg	390	12/20/06 19:31 BET	86-30-6		
Pentachlorophenol	ND	ug/kg	1900	12/20/06 19:31 BET	87-86-5		
Phenanthrene	ND	ug/kg	390	12/20/06 19:31 BET	85-01-8		
Phenol	ND	ug/kg	390	12/20/06 19:31 BET	108-95-2		
Pyrene	ND	ug/kg	390	12/20/06 19:31 BET	129-00-0		
1,2,4-Trichlorobenzene	ND	ug/kg	390	12/20/06 19:31 BET	120-82-1		
2,4,5-Trichlorophenol	ND	ug/kg	390	12/20/06 19:31 BET	95-95-4		
2,4,6-Trichlorophenol	ND	ug/kg	390	12/20/06 19:31 BET	88-06-2		
Nitrobenzene-d5 (S)	28	%		12/20/06 19:31 BET	4165-60-0		
2-Fluorobiphenyl (S)	27	%		12/20/06 19:31 BET	321-60-8		
Terphenyl-d14 (S)	30	%		12/20/06 19:31 BET	1718-51-0		
Phenol-d5 (S)	19	%		12/20/06 19:31 BET	4165-62-2	3	
2-Fluorophenol (S)	10	%		12/20/06 19:31 BET	367-12-4		

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 NC Wastewater 12  
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 SC 99006  
 FL NELAP E87627

Lab Project Number: 92134250  
 Client Project ID: Hatch 6620.01

Lab Sample No:	927799320	Project Sample Number:	92134250-002	Date Collected:	12/15/06 10:30
Client Sample ID:	WS2-15	Matrix:	Soil	Date Received:	12/15/06 14:47

Parameters	Results	Units	Report Limit	Analyzed By	CAS No.	Qual	RegLmt
2,4,6-Tribromophenol (S)	1	%		12/20/06 19:31 BET	118-79-6	3	
Date Extracted	12/19/06			12/19/06			

#### GC Semivolatiles

EPH in Soil by Mass. Method	Prep/Method: EPA 3545 / EPH
Aliphatic (C9-C18)	ND mg/kg 12. 12/20/06 04:28 MGB
Aliphatic (C19-C36)	ND mg/kg 12. 12/20/06 04:28 MGB
Aromatic (C11-C22)	ND mg/kg 12. 12/20/06 04:28 MGB
Nonatriacontane (S)	69 % 12/20/06 04:28 MGB 7194-86-7
o-Terphenyl (S)	72 % 12/20/06 04:28 MGB 84-15-1
2-Fluorobiphenyl (S)	90 % 12/20/06 04:28 MGB 321-60-8
2-Bromonaphthalene (S)	108 % 12/20/06 04:28 MGB 580-13-2
Date Extracted	12/18/06 17:00 12/18/06 17:00

#### GC Volatiles

VPH in Soil by Mass. Method	Method: VPH
Aliphatic (C5-C8)	ND mg/kg 10. 12/19/06 12:48 DHW
Aliphatic (C9-C12)	ND mg/kg 10. 12/19/06 12:48 DHW
Aromatic (C9-C10)	ND mg/kg 10. 12/19/06 12:48 DHW
2,5-Dibromotoluene (PID) (S)	81 % 12/19/06 12:48 DHW
2,5-Dibromotoluene (FID) (S)	96 % 12/19/06 12:48 DHW

#### GC/MS Volatiles

GC/MS VOCs 5035/8260 low level	Method: EPA 8260
Acetone	ND ug/kg 91. 12/20/06 16:09 DLK 67-64-1
Benzene	ND ug/kg 4.5 12/20/06 16:09 DLK 71-43-2
Bromobenzene	ND ug/kg 4.5 12/20/06 16:09 DLK 108-86-1
Bromochloromethane	ND ug/kg 4.5 12/20/06 16:09 DLK 74-97-5
Bromodichloromethane	ND ug/kg 4.5 12/20/06 16:09 DLK 75-27-4
Bromoform	ND ug/kg 4.5 12/20/06 16:09 DLK 75-25-2
Bromomethane	ND ug/kg 9.1 12/20/06 16:09 DLK 74-83-9
2-Butanone (MEK)	ND ug/kg 91. 12/20/06 16:09 DLK 78-93-3
n-Butylbenzene	ND ug/kg 4.5 12/20/06 16:09 DLK 104-51-8
sec-Butylbenzene	ND ug/kg 4.5 12/20/06 16:09 DLK 135-98-8
tert-Butylbenzene	ND ug/kg 4.5 12/20/06 16:09 DLK 98-06-6
Carbon tetrachloride	ND ug/kg 4.5 12/20/06 16:09 DLK 56-23-5
Chlorobenzene	ND ug/kg 4.5 12/20/06 16:09 DLK 108-90-7
Chloroethane	ND ug/kg 9.1 12/20/06 16:09 DLK 75-00-3
Chloroform	ND ug/kg 4.5 12/20/06 16:09 DLK 67-66-3

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 SC 99006  
 FL NELAP E87627

Lab Project Number: 92134250  
Client Project ID: Hatch 6620.01

Lab Sample No: 927799320      Project Sample Number: 92134250-002      Date Collected: 12/15/06 10:30  
Client Sample ID: WS2-15      Matrix: Soil      Date Received: 12/15/06 14:47

Parameters	Results	Units	Report Limit	Analyzed By	CAS No.	Qual	RegLmt
Chloromethane	ND	ug/kg	9.1	12/20/06 16:09 DLK	74-87-3		
2-Chlorotoluene	ND	ug/kg	4.5	12/20/06 16:09 DLK	95-49-8		
4-Chlorotoluene	ND	ug/kg	4.5	12/20/06 16:09 DLK	106-43-4		
1,2-Dibromo-3-chloropropane	ND	ug/kg	4.5	12/20/06 16:09 DLK	96-12-8		
Dibromochloromethane	ND	ug/kg	4.5	12/20/06 16:09 DLK	124-48-1		
1,2-Dibromoethane (EDB)	ND	ug/kg	4.5	12/20/06 16:09 DLK	106-93-4		
Dibromomethane	ND	ug/kg	4.5	12/20/06 16:09 DLK	74-95-3		
1,2-Dichlorobenzene	ND	ug/kg	4.5	12/20/06 16:09 DLK	95-50-1		
1,3-Dichlorobenzene	ND	ug/kg	4.5	12/20/06 16:09 DLK	541-73-1		
1,4-Dichlorobenzene	ND	ug/kg	4.5	12/20/06 16:09 DLK	106-46-7		
Dichlorodifluoromethane	ND	ug/kg	9.1	12/20/06 16:09 DLK	75-71-8		
1,1-Dichloroethane	ND	ug/kg	4.5	12/20/06 16:09 DLK	75-34-3		
1,2-Dichloroethane	ND	ug/kg	4.5	12/20/06 16:09 DLK	107-06-2		
1,1-Dichloroethene	ND	ug/kg	4.5	12/20/06 16:09 DLK	75-35-4		
cis-1,2-Dichloroethene	ND	ug/kg	4.5	12/20/06 16:09 DLK	156-59-2		
trans-1,2-Dichloroethene	ND	ug/kg	4.5	12/20/06 16:09 DLK	156-60-5		
1,2-Dichloropropane	ND	ug/kg	4.5	12/20/06 16:09 DLK	78-87-5		
1,3-Dichloropropane	ND	ug/kg	4.5	12/20/06 16:09 DLK	142-28-9		
2,2-Dichloropropane	ND	ug/kg	4.5	12/20/06 16:09 DLK	594-20-7		
1,1-Dichloropropene	ND	ug/kg	4.5	12/20/06 16:09 DLK	563-58-6		
cis-1,3-Dichloropropene	ND	ug/kg	4.5	12/20/06 16:09 DLK	10061-01-5		
trans-1,3-Dichloropropene	ND	ug/kg	4.5	12/20/06 16:09 DLK	10061-02-6		
Diisopropyl ether	ND	ug/kg	4.5	12/20/06 16:09 DLK	108-20-3		
Ethylbenzene	ND	ug/kg	4.5	12/20/06 16:09 DLK	100-41-4		
Hexachloro-1,3-butadiene	ND	ug/kg	4.5	12/20/06 16:09 DLK	87-68-3		
2-Hexanone	ND	ug/kg	45.	12/20/06 16:09 DLK	591-78-6		
Isopropylbenzene (Cumene)	ND	ug/kg	4.5	12/20/06 16:09 DLK	98-82-8		
p-Isopropyltoluene	ND	ug/kg	4.5	12/20/06 16:09 DLK	99-87-6		
Methylene chloride	ND	ug/kg	4.5	12/20/06 16:09 DLK	75-09-2		
4-Methyl-2-pentanone (MIBK)	ND	ug/kg	45.	12/20/06 16:09 DLK	108-10-1		
Methyl-tert-butyl ether	ND	ug/kg	4.5	12/20/06 16:09 DLK	1634-04-4		
Naphthalene	ND	ug/kg	4.5	12/20/06 16:09 DLK	91-20-3		
n-Propylbenzene	ND	ug/kg	4.5	12/20/06 16:09 DLK	103-65-1		
Styrene	ND	ug/kg	4.5	12/20/06 16:09 DLK	100-42-5		
1,1,1,2-Tetrachloroethane	ND	ug/kg	4.5	12/20/06 16:09 DLK	630-20-6		
1,1,2,2-Tetrachloroethane	ND	ug/kg	4.5	12/20/06 16:09 DLK	79-34-5		
Tetrachloroethene	ND	ug/kg	4.5	12/20/06 16:09 DLK	127-18-4		
Toluene	ND	ug/kg	4.5	12/20/06 16:09 DLK	108-88-3		
1,2,3-Trichlorobenzene	ND	ug/kg	4.5	12/20/06 16:09 DLK	87-61-6		

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NC Drinking Water 37706  
SC 99006  
FL NELAP E87627

Lab Project Number: 92134250  
 Client Project ID: Hatch 6620.01

Lab Sample No: 927799320	Project Sample Number: 92134250-002	Date Collected: 12/15/06 10:30
Client Sample ID: WS2-15	Matrix: Soil	Date Received: 12/15/06 14:47

Parameters	Results	Units	Report Limit	Analyzed	By	CAS No.	Qual	RegLmt
1,2,4-Trichlorobenzene	ND	ug/kg	4.5	12/20/06 16:09	DLK	120-82-1		
1,1,1-Trichloroethane	ND	ug/kg	4.5	12/20/06 16:09	DLK	71-55-6		
1,1,2-Trichloroethane	ND	ug/kg	4.5	12/20/06 16:09	DLK	79-00-5		
Trichloroethene	ND	ug/kg	4.5	12/20/06 16:09	DLK	79-01-6		
Trichlorofluoromethane	ND	ug/kg	4.5	12/20/06 16:09	DLK	75-69-4		
1,2,3-Trichloropropane	ND	ug/kg	4.5	12/20/06 16:09	DLK	96-18-4		
1,2,4-Trimethylbenzene	ND	ug/kg	4.5	12/20/06 16:09	DLK	95-63-6		
1,3,5-Trimethylbenzene	ND	ug/kg	4.5	12/20/06 16:09	DLK	108-67-8		
Vinyl acetate	ND	ug/kg	45.	12/20/06 16:09	DLK	108-05-4		
Vinyl chloride	ND	ug/kg	9.1	12/20/06 16:09	DLK	75-01-4		
m&p-Xylene	ND	ug/kg	9.1	12/20/06 16:09	DLK			
o-Xylene	ND	ug/kg	4.5	12/20/06 16:09	DLK	95-47-6		
Toluene-d8 (S)	104	%		12/20/06 16:09	DLK	2037-26-5		
4-Bromofluorobenzene (S)	94	%		12/20/06 16:09	DLK	460-00-4		
Dibromofluoromethane (S)	96	%		12/20/06 16:09	DLK	1868-53-7		
1,2-Dichloroethane-d4 (S)	94	%		12/20/06 16:09	DLK	17060-07-0		

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Lab Project Number: 92134250  
Client Project ID: Hatch 6620.01

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#### PARAMETER FOOTNOTES

Method 9071B modified to use ASE.

All pH, Free Chlorine, Total Chlorine and Ferrous Iron analyses conducted outside of EPA recommended immediate hold time.

Depending on the moisture content the PRLs can be elevated for all soil samples reported on a dry weight basis.

2-Chloroethyl vinyl ether has been shown to degrade in the presence of acid.

- |     |  |
|-----|--|
| ND  | Not detected at or above adjusted reporting limit  |
| NC  | Not Calculable   |
| J   | Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit |
| MDL | Adjusted Method Detection Limit  |
| (S) | Surrogate  |
| [1] | The sample was diluted to reduce matrix interference, resulting in elevated reporting limits.            |
| [2] | The surrogate recovery was outside QC acceptance limits due to matrix interference.                      |
| [3] | Low surrogate recovery was confirmed as a matrix effect by a second analysis.                            |

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### QUALITY CONTROL DATA

Lab Project Number: 92134250  
 Client Project ID: Hatch 6620.01

---

QC Batch: 175704	Analysis Method: EPH
QC Batch Method: EPA 3545	Analysis Description: EPH in Soil by Mass. Method
Associated Lab Samples:	927799312      927799320

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METHOD BLANK: 927804872

Associated Lab Samples: 927799312      927799320

<u>Parameter</u>	<u>Units</u>	<u>Blank</u>	<u>Reporting</u>		<u>Footnotes</u>
		<u>Result</u>	<u>Limit</u>		
Aliphatic (C9-C18)	mg/kg	ND	10.		
Aliphatic (C19-C36)	mg/kg	ND	10.		
Aromatic (C11-C22)	mg/kg	ND	10.		
Nonatriacontane (S)	%	78			
o-Terphenyl (S)	%	105			
2-Fluorobiphenyl (S)	%	109			
2-Bromonaphthalene (S)	%	119			

---

LABORATORY CONTROL SAMPLE & LCSD: 927804880 927804898

<u>Parameter</u>	<u>Units</u>	<u>Spike</u>	<u>LCS</u>	<u>LCSD</u>	<u>LCS</u>	<u>LCSD</u>	<u>Footnotes</u>
		<u>Conc.</u>	<u>Result</u>	<u>Result</u>	<u>% Rec</u>	<u>% Rec</u>	
Aliphatic (C9-C18)	mg/kg	10.00	8.271	7.470	83	75	10
Aliphatic (C19-C36)	mg/kg	13.33	12.33	11.23	92	84	9
Aromatic (C11-C22)	mg/kg	28.33	31.98	34.15	113	121	7
Nonatriacontane (S)					60	46	
o-Terphenyl (S)					103	121	
2-Fluorobiphenyl (S)					100	105	
2-Bromonaphthalene (S)					118	125	

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### QUALITY CONTROL DATA

Lab Project Number: 92134250  
 Client Project ID: Hatch 6620.01

QC Batch: 175794	Analysis Method: VPH
QC Batch Method: VPH	Analysis Description: VPH in Soil by Mass. Method
Associated Lab Samples:	927799312      927799320

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METHOD BLANK: 927806836	
Associated Lab Samples:	927799312      927799320

<u>Parameter</u>	<u>Units</u>	Blank	Reporting	<u>Footnotes</u>
		<u>Result</u>	<u>Limit</u>	
Aliphatic (C5-C8)	mg/kg	ND	10.	
Aliphatic (C9-C12)	mg/kg	ND	10.	
Aromatic (C9-C10)	mg/kg	ND	10.	
2,5-Dibromotoluene (PID) (S)	%	78		
2,5-Dibromotoluene (FID) (S)	%	92		

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LABORATORY CONTROL SAMPLE & LCSD: 927806844 927806851

<u>Parameter</u>	<u>Units</u>	Spike	LCS	LCSD	LCS	LCSD	<u>Footnotes</u>
		<u>Conc.</u>	<u>Result</u>	<u>Result</u>	<u>% Rec</u>	<u>% Rec</u>	
Aliphatic (C5-C8)	mg/kg	20.00	20.64	14.24	103	71	37
Aliphatic (C9-C12)	mg/kg	5.000	5.336	4.101	107	82	26
Aromatic (C9-C10)	mg/kg	5.000	5.934	5.774	119	115	3
2,5-Dibromotoluene (PID) (S)	%				108	114	
2,5-Dibromotoluene (FID) (S)	%				90	94	

---

SAMPLE DUPLICATE: 927806869

<u>Parameter</u>	<u>Units</u>	927801993	DUP	<u>Footnotes</u>
		<u>Result</u>	<u>Result</u>	
Aliphatic (C5-C8)	mg/kg	ND	ND	NC
Aliphatic (C9-C12)	mg/kg	ND	ND	NC
Aromatic (C9-C10)	mg/kg	ND	ND	NC
2,5-Dibromotoluene (PID) (S)	%	84	85	
2,5-Dibromotoluene (FID) (S)	%	97	98	

## QUALITY CONTROL DATA

Lab Project Number: 92134250  
 Client Project ID: Hatch 6620.01

QC Batch: 175831	Analysis Method: EPA 8270
QC Batch Method: EPA 3545	Analysis Description: Semivolatile Organics
Associated Lab Samples:	927799312      927799320

---

METHOD BLANK: 927807859	
Associated Lab Samples:	927799312      927799320

Parameter	Units	Blank Result	Reporting Limit	Footnotes
Acenaphthene	ug/kg	ND	330	
Acenaphthylene	ug/kg	ND	330	
Anthracene	ug/kg	ND	330	
Benzo(k)fluoranthene	ug/kg	ND	330	
Benzo(b)fluoranthene	ug/kg	ND	330	
Benzo(a)anthracene	ug/kg	ND	330	
Benzoic acid	ug/kg	ND	1600	
Benzo(g,h,i)perylene	ug/kg	ND	330	
Benzyl alcohol	ug/kg	ND	660	
Benzo(a)pyrene	ug/kg	ND	330	
4-Bromophenylphenyl ether	ug/kg	ND	330	
Butylbenzylphthalate	ug/kg	ND	330	
4-Chloro-3-methylphenol	ug/kg	ND	660	
4-Chloroaniline	ug/kg	ND	660	
bis(2-Chloroethoxy)methane	ug/kg	ND	330	
bis(2-Chloroethyl) ether	ug/kg	ND	330	
bis(2-Chloroisopropyl) ether	ug/kg	ND	330	
2-Chloronaphthalene	ug/kg	ND	330	
2-Chlorophenol	ug/kg	ND	330	
4-Chlorophenylphenyl ether	ug/kg	ND	330	
Chrysene	ug/kg	ND	330	
Dibenz(a,h)anthracene	ug/kg	ND	330	
Dibenzo furan	ug/kg	ND	330	
1,2-Dichlorobenzene	ug/kg	ND	330	
1,3-Dichlorobenzene	ug/kg	ND	330	
1,4-Dichlorobenzene	ug/kg	ND	330	
3,3'-Dichlorobenzidine	ug/kg	ND	660	
2,4-Dichlorophenol	ug/kg	ND	330	
Diethylphthalate	ug/kg	ND	330	
2,4-Dimethylphenol	ug/kg	ND	330	
Dimethylphthalate	ug/kg	ND	330	

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## QUALITY CONTROL DATA

Lab Project Number: 92134250  
Client Project ID: Hatch 6620.01

METHOD BLANK: 927807859

Associated Lab Samples: 927799312 927799320

Parameter	Units	Blank Result	Reporting Limit	Footnotes
Di-n-butylphthalate	ug/kg	ND	330	
4,6-Dinitro-2-methylphenol	ug/kg	ND	330	
2,4-Dinitrophenol	ug/kg	ND	1600	
2,4-Dinitrotoluene	ug/kg	ND	330	
2,6-Dinitrotoluene	ug/kg	ND	330	
Di-n-octylphthalate	ug/kg	ND	330	
1,2-Diphenylhydrazine	ug/kg	ND	330	
bis(2-Ethylhexyl)phthalate	ug/kg	ND	330	
Fluoranthene	ug/kg	ND	330	
Fluorene	ug/kg	ND	330	
Hexachloro-1,3-butadiene	ug/kg	ND	330	
Hexachlorobenzene	ug/kg	ND	330	
Hexachlorocyclopentadiene	ug/kg	ND	330	
Hexachloroethane	ug/kg	ND	330	
Indeno(1,2,3-cd)pyrene	ug/kg	ND	330	
Isophorone	ug/kg	ND	330	
1-Methylnaphthalene	ug/kg	ND	330	
2-Methylnaphthalene	ug/kg	ND	330	
2-Methylphenol (o-Cresol)	ug/kg	ND	330	
3&4-Methylphenol	ug/kg	ND	330	
Naphthalene	ug/kg	ND	330	
2-Nitroaniline	ug/kg	ND	1600	
3-Nitroaniline	ug/kg	ND	1600	
4-Nitroaniline	ug/kg	ND	1600	
Nitrobenzene	ug/kg	ND	330	
2-Nitrophenol	ug/kg	ND	330	
4-Nitrophenol	ug/kg	ND	1600	
N-Nitroso-di-n-propylamine	ug/kg	ND	330	
N-Nitrosodiphenylamine	ug/kg	ND	330	
Pentachlorophenol	ug/kg	ND	1600	
Phenanthrene	ug/kg	ND	330	
Phenol	ug/kg	ND	330	
Pyrene	ug/kg	ND	330	
1,2,4-Trichlorobenzene	ug/kg	ND	330	
2,4,5-Trichlorophenol	ug/kg	ND	330	
2,4,6-Trichlorophenol	ug/kg	ND	330	

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### QUALITY CONTROL DATA

Lab Project Number: 92134250  
 Client Project ID: Hatch 6620.01

METHOD BLANK: 927807859

Associated Lab Samples: 927799312 927799320

<u>Parameter</u>	<u>Units</u>	<u>Blank</u>	<u>Reporting</u>		
		<u>Result</u>	<u>Limit</u>	<u>Footnotes</u>	
Nitrobenzene-d5 (S)	%	52			
2-Fluorobiphenyl (S)	%	49			
Terphenyl-d14 (S)	%	51			
Phenol-d5 (S)	%	56			
2-Fluorophenol (S)	%	56			
2,4,6-Tribromophenol (S)	%	46			

LABORATORY CONTROL SAMPLE: 927807867

<u>Parameter</u>	<u>Units</u>	<u>Spike</u>	<u>LCS</u>	<u>LCS</u>	<u>Footnotes</u>
		<u>Conc.</u>	<u>Result</u>	<u>% Rec</u>	
Acenaphthene	ug/kg	1667.00	946.7	57	
Acenaphthylene	ug/kg	1667.00	956.0	57	
Anthracene	ug/kg	1667.00	1058	64	
Benzo(k)fluoranthene	ug/kg	1667.00	1092	66	
Benzo(b)fluoranthene	ug/kg	1667.00	832.2	50	
Benzo(a)anthracene	ug/kg	1667.00	877.5	53	
Benzoic acid	ug/kg	1667.00	371.2	22	
Benzo(g,h,i)perylene	ug/kg	1667.00	943.7	57	
Benzyl alcohol	ug/kg	1667.00	737.6	44	
Benzo(a)pyrene	ug/kg	1667.00	1048	63	
4-Bromophenylphenyl ether	ug/kg	1667.00	911.0	55	
Butylbenzylphthalate	ug/kg	1667.00	980.1	59	
4-Chloro-3-methylphenol	ug/kg	1667.00	1049	63	
4-Chloroaniline	ug/kg	1667.00	1191	72	
bis(2-Chloroethoxy)methane	ug/kg	1667.00	1010	61	
bis(2-Chloroethyl) ether	ug/kg	1667.00	940.4	56	
bis(2-Chloroisopropyl) ether	ug/kg	1667.00	855.0	51	
2-Chloronaphthalene	ug/kg	1667.00	925.7	56	
2-Chlorophenol	ug/kg	1667.00	842.2	50	
4-Chlorophenylphenyl ether	ug/kg	1667.00	913.2	55	
Chrysene	ug/kg	1667.00	1114	67	
Dibenz(a,h)anthracene	ug/kg	1667.00	960.3	58	
Dibenzo furan	ug/kg	1667.00	963.7	58	
1,2-Dichlorobenzene	ug/kg	1667.00	816.7	49	

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 NC Wastewater 12  
 NC Drinking Water 37706  
 SC 99006  
 FL NELAP E87627

### QUALITY CONTROL DATA

Lab Project Number: 92134250  
 Client Project ID: Hatch 6620.01

---

LABORATORY CONTROL SAMPLE: 927807867

<u>Parameter</u>	<u>Units</u>	<u>Spike</u>	<u>LCS</u>	<u>LCS</u>	<u>% Rec</u>	<u>Footnotes</u>
		<u>Conc.</u>	<u>Result</u>	<u> </u>		
1,3-Dichlorobenzene	ug/kg	1667.00	767.0	46		
1,4-Dichlorobenzene	ug/kg	1667.00	769.3	46		
3,3'-Dichlorobenzidine	ug/kg	3333.00	632.8	19		
2,4-Dichlorophenol	ug/kg	1667.00	926.9	56		
Diethylphthalate	ug/kg	1667.00	891.7	54		
2,4-Dimethylphenol	ug/kg	1667.00	924.3	56		
Dimethylphthalate	ug/kg	1667.00	923.5	55		
Di-n-butylphthalate	ug/kg	1667.00	821.5	49		
4,6-Dinitro-2-methylphenol	ug/kg	1667.00	607.3	36		
2,4-Dinitrophenol	ug/kg	1667.00	957.2	57		
2,4-Dinitrotoluene	ug/kg	1667.00	924.6	56		
2,6-Dinitrotoluene	ug/kg	1667.00	938.3	56		
Di-n-octylphthalate	ug/kg	1667.00	1052	63		
1,2-Diphenylhydrazine	ug/kg	1667.00	926.7	56		
bis(2-Ethylhexyl)phthalate	ug/kg	1667.00	1020	61		
Fluoranthene	ug/kg	1667.00	817.4	49		
Fluorene	ug/kg	1667.00	937.1	56		
Hexachloro-1,3-butadiene	ug/kg	1667.00	818.7	49		
Hexachlorobenzene	ug/kg	1667.00	849.7	51		
Hexachlorocyclopentadiene	ug/kg	1667.00	1428	86		
Hexachloroethane	ug/kg	1667.00	753.8	45		
Indeno(1,2,3-cd)pyrene	ug/kg	1667.00	928.5	56		
Isophorone	ug/kg	1667.00	1287	77		
1-Methylnaphthalene	ug/kg	1667.00	1093	66		
2-Methylnaphthalene	ug/kg	1667.00	1166	70		
2-Methylphenol (o-Cresol)	ug/kg	1667.00	912.9	55		
3&4-Methylphenol	ug/kg	1667.00	1050	63		
Naphthalene	ug/kg	1667.00	899.6	54		
2-Nitroaniline	ug/kg	1667.00	904.6	54		
3-Nitroaniline	ug/kg	1667.00	927.5	56		
4-Nitroaniline	ug/kg	1667.00	843.2	51		
Nitrobenzene	ug/kg	1667.00	1035	62		
2-Nitrophenol	ug/kg	1667.00	947.2	57		
4-Nitrophenol	ug/kg	1667.00	1124	68		
N-Nitroso-di-n-propylamine	ug/kg	1667.00	929.1	56		
N-Nitrosodiphenylamine	ug/kg	1667.00	982.6	59		
Pentachlorophenol	ug/kg	1667.00	1134	68		

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### QUALITY CONTROL DATA

Lab Project Number: 92134250  
 Client Project ID: Hatch 6620.01

---

LABORATORY CONTROL SAMPLE: 927807867

<u>Parameter</u>	<u>Units</u>	<u>Spike</u>	<u>LCS</u>	<u>LCS</u>	<u>% Rec</u>	<u>Footnotes</u>
		<u>Conc.</u>	<u>Result</u>	<u>% Rec</u>		
Phenanthrene	ug/kg	1667.00	903.3	54		
Phenol	ug/kg	1667.00	900.5	54		
Pyrene	ug/kg	1667.00	1014	61		
1,2,4-Trichlorobenzene	ug/kg	1667.00	864.2	52		
2,4,5-Trichlorophenol	ug/kg	1667.00	952.7	57		
2,4,6-Trichlorophenol	ug/kg	1667.00	921.1	55		
Nitrobenzene-d5 (S)				54		
2-Fluorobiphenyl (S)				56		
Terphenyl-d14 (S)				56		
Phenol-d5 (S)				49		
2-Fluorophenol (S)				52		
2,4,6-Tribromophenol (S)				52		

---

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 927807875 927807883

<u>Parameter</u>	<u>Units</u>	<u>927783829 Result</u>	<u>Spike</u>	<u>MS</u>	<u>MSD</u>	<u>MS</u>	<u>MSD</u>	<u>RPD</u>	<u>Footnotes</u>
			<u>Conc.</u>	<u>Result</u>	<u>Result</u>	<u>% Rec</u>	<u>% Rec</u>		
Acenaphthene	ug/kg	0	3187.00	814.4	1150	26	36	34	1
4-Chloro-3-methylphenol	ug/kg	0	3187.00	723.4	1012	23	32	33	
2-Chlorophenol	ug/kg	0	3187.00	783.4	1076	25	34	31	1
1,4-Dichlorobenzene	ug/kg	0	3187.00	926.2	1144	29	36	21	
2,4-Dinitrotoluene	ug/kg	0	3187.00	859.9	1289	27	40	40	1
4-Nitrophenol	ug/kg	0	3187.00	686.8	674.5	22	21	2	1
N-Nitroso-di-n-propylamine	ug/kg	0	3187.00	749.2	1148	24	36	42	1
Pentachlorophenol	ug/kg	0	3187.00	769.5	936.1	24	29	20	
Phenol	ug/kg	0	3187.00	814.3	1149	26	36	34	1
Pyrene	ug/kg	0	3187.00	807.0	1128	25	35	33	
1,2,4-Trichlorobenzene	ug/kg	0	3187.00	719.8	945.4	23	30	27	
Nitrobenzene-d5 (S)						22	31		
2-Fluorobiphenyl (S)						24	36		
Terphenyl-d14 (S)						20	31		
Phenol-d5 (S)						27	39	2,2	
2-Fluorophenol (S)						26	35		
2,4,6-Tribromophenol (S)						24	34		

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### QUALITY CONTROL DATA

Lab Project Number: 92134250  
 Client Project ID: Hatch 6620.01

---

QC Batch: 176041	Analysis Method: EPA 8260
QC Batch Method: EPA 8260	Analysis Description: GC/MS VOCs 5035/8260 low level
Associated Lab Samples:	927799312      927799320

---

METHOD BLANK: 927816629  
 Associated Lab Samples: 927799312      927799320

<u>Parameter</u>	<u>Units</u>	<u>Blank Result</u>	<u>Reporting Limit</u>	<u>Footnotes</u>
Acetone	ug/kg	ND	100	
Benzene	ug/kg	ND	5.0	
Bromobenzene	ug/kg	ND	5.0	
Bromochloromethane	ug/kg	ND	5.0	
Bromodichloromethane	ug/kg	ND	5.0	
Bromoform	ug/kg	ND	5.0	
Bromomethane	ug/kg	ND	10.	
2-Butanone (MEK)	ug/kg	ND	100	
n-Butylbenzene	ug/kg	ND	5.0	
sec-Butylbenzene	ug/kg	ND	5.0	
tert-Butylbenzene	ug/kg	ND	5.0	
Carbon tetrachloride	ug/kg	ND	5.0	
Chlorobenzene	ug/kg	ND	5.0	
Chloroethane	ug/kg	ND	10.	
Chloroform	ug/kg	ND	5.0	
Chloromethane	ug/kg	ND	10.	
2-Chlorotoluene	ug/kg	ND	5.0	
4-Chlorotoluene	ug/kg	ND	5.0	
1,2-Dibromo-3-chloropropane	ug/kg	ND	5.0	
Dibromochloromethane	ug/kg	ND	5.0	
1,2-Dibromoethane (EDB)	ug/kg	ND	5.0	
Dibromomethane	ug/kg	ND	5.0	
1,2-Dichlorobenzene	ug/kg	ND	5.0	
1,3-Dichlorobenzene	ug/kg	ND	5.0	
1,4-Dichlorobenzene	ug/kg	ND	5.0	
Dichlorodifluoromethane	ug/kg	ND	10.	
1,1-Dichloroethane	ug/kg	ND	5.0	
1,2-Dichloroethane	ug/kg	ND	5.0	
1,1-Dichloroethene	ug/kg	ND	5.0	
cis-1,2-Dichloroethene	ug/kg	ND	5.0	
trans-1,2-Dichloroethene	ug/kg	ND	5.0	

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 FL NELAP E87627

## QUALITY CONTROL DATA

Lab Project Number: 92134250  
 Client Project ID: Hatch 6620.01

METHOD BLANK: 927816629

Associated Lab Samples: 927799312 927799320

<u>Parameter</u>	<u>Units</u>	<u>Blank</u>	<u>Reporting</u>	<u>Footnotes</u>
		<u>Result</u>	<u>Limit</u>	
1,2-Dichloropropane	ug/kg	ND	5.0	
1,3-Dichloropropane	ug/kg	ND	5.0	
2,2-Dichloropropane	ug/kg	ND	5.0	
1,1-Dichloropropene	ug/kg	ND	5.0	
cis-1,3-Dichloropropene	ug/kg	ND	5.0	
trans-1,3-Dichloropropene	ug/kg	ND	5.0	
Diisopropyl ether	ug/kg	ND	5.0	
Ethylbenzene	ug/kg	ND	5.0	
Hexachloro-1,3-butadiene	ug/kg	ND	5.0	
2-Hexanone	ug/kg	ND	50.	
Isopropylbenzene (Cumene)	ug/kg	ND	5.0	
p-Isopropyltoluene	ug/kg	ND	5.0	
Methylene chloride	ug/kg	ND	5.0	
4-Methyl-2-pentanone (MIBK)	ug/kg	ND	50.	
Methyl-tert-butyl ether	ug/kg	ND	5.0	
Naphthalene	ug/kg	ND	5.0	
n-Propylbenzene	ug/kg	ND	5.0	
Styrene	ug/kg	ND	5.0	
1,1,2-Tetrachloroethane	ug/kg	ND	5.0	
1,1,2,2-Tetrachloroethane	ug/kg	ND	5.0	
Tetrachloroethene	ug/kg	ND	5.0	
Toluene	ug/kg	ND	5.0	
1,2,3-Trichlorobenzene	ug/kg	ND	5.0	
1,2,4-Trichlorobenzene	ug/kg	ND	5.0	
1,1,1-Trichloroethane	ug/kg	ND	5.0	
1,1,2-Trichloroethane	ug/kg	ND	5.0	
Trichloroethene	ug/kg	ND	5.0	
Trichlorofluoromethane	ug/kg	ND	5.0	
1,2,3-Trichloropropane	ug/kg	ND	5.0	
1,2,4-Trimethylbenzene	ug/kg	ND	5.0	
1,3,5-Trimethylbenzene	ug/kg	ND	5.0	
Vinyl acetate	ug/kg	ND	50.	
Vinyl chloride	ug/kg	ND	10.	
m,p-Xylene	ug/kg	ND	10.	
o-Xylene	ug/kg	ND	5.0	
Toluene-d8 (S)	%	105		

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## QUALITY CONTROL DATA

Lab Project Number: 92134250  
Client Project ID: Hatch 6620.01

METHOD BLANK: 927816629

Associated Lab Samples: 927799312 927799320

<u>Parameter</u>	<u>Units</u>	<u>Blank</u>	<u>Reporting</u>	
		<u>Result</u>	<u>Limit</u>	<u>Footnotes</u>
4-Bromofluorobenzene (S)	%	99		
Dibromofluoromethane (S)	%	96		
1,2-Dichloroethane-d4 (S)	%	99		

LABORATORY CONTROL SAMPLE: 927816637

<u>Parameter</u>	<u>Units</u>	<u>Spike</u>	<u>LCS</u>	<u>LCS</u>	
		<u>Conc.</u>	<u>Result</u>	<u>% Rec</u>	<u>Footnotes</u>
Acetone	ug/kg	100.00	95.92	96	
Benzene	ug/kg	50.00	53.70	107	
Bromobenzene	ug/kg	50.00	61.43	123	
Bromochloromethane	ug/kg	50.00	55.95	112	
Bromodichloromethane	ug/kg	50.00	61.43	123	
Bromoform	ug/kg	50.00	65.11	130	
Bromomethane	ug/kg	50.00	56.10	112	
2-Butanone (MEK)	ug/kg	100.00	112.5	112	
n-Butylbenzene	ug/kg	50.00	52.75	106	
sec-Butylbenzene	ug/kg	50.00	54.44	109	
tert-Butylbenzene	ug/kg	50.00	51.21	102	
Carbon tetrachloride	ug/kg	50.00	53.44	107	
Chlorobenzene	ug/kg	50.00	59.39	119	
Chloroethane	ug/kg	50.00	43.79	88	
Chloroform	ug/kg	50.00	44.43	89	
Chloromethane	ug/kg	50.00	39.40	79	
2-Chlorotoluene	ug/kg	50.00	60.67	121	
4-Chlorotoluene	ug/kg	50.00	56.83	114	
1,2-Dibromo-3-chloropropane	ug/kg	50.00	64.72	129	
Dibromochloromethane	ug/kg	50.00	63.29	127	
1,2-Dibromoethane (EDB)	ug/kg	50.00	56.95	114	
Dibromomethane	ug/kg	50.00	60.86	122	
1,2-Dichlorobenzene	ug/kg	50.00	57.05	114	
1,3-Dichlorobenzene	ug/kg	50.00	58.37	117	
1,4-Dichlorobenzene	ug/kg	50.00	58.69	117	
Dichlorodifluoromethane	ug/kg	50.00	30.93	62	
1,1-Dichloroethane	ug/kg	50.00	43.60	87	

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## QUALITY CONTROL DATA

Lab Project Number: 92134250  
 Client Project ID: Hatch 6620.01

---

LABORATORY CONTROL SAMPLE: 927816637

<u>Parameter</u>	<u>Units</u>	Spike Conc.	LCS Result	LCS % Rec	<u>Footnotes</u>
1,2-Dichloroethane	ug/kg	50.00	54.32	109	
1,1-Dichloroethene	ug/kg	50.00	56.44	113	
cis-1,2-Dichloroethene	ug/kg	50.00	60.62	121	
trans-1,2-Dichloroethene	ug/kg	50.00	47.22	94	
1,2-Dichloropropane	ug/kg	50.00	60.34	121	
1,3-Dichloropropane	ug/kg	50.00	60.47	121	
2,2-Dichloropropane	ug/kg	50.00	56.55	113	
1,1-Dichloropropene	ug/kg	50.00	52.01	104	
cis-1,3-Dichloropropene	ug/kg	50.00	65.81	132	3
trans-1,3-Dichloropropene	ug/kg	50.00	66.91	134	3
Diisopropyl ether	ug/kg	50.00	48.42	97	
Ethylbenzene	ug/kg	50.00	57.64	115	
Hexachloro-1,3-butadiene	ug/kg	50.00	57.66	115	
2-Hexanone	ug/kg	100.00	97.54	98	
Isopropylbenzene (Cumene)	ug/kg	50.00	53.39	107	
p-Isopropyltoluene	ug/kg	50.00	50.91	102	
Methylene chloride	ug/kg	50.00	44.87	90	
4-Methyl-2-pentanone (MIBK)	ug/kg	100.00	116.7	117	
Methyl-tert-butyl ether	ug/kg	50.00	57.20	114	
Naphthalene	ug/kg	50.00	55.54	111	
n-Propylbenzene	ug/kg	50.00	53.83	108	
Styrene	ug/kg	50.00	59.79	120	
1,1,1,2-Tetrachloroethane	ug/kg	50.00	55.14	110	
1,1,2,2-Tetrachloroethane	ug/kg	50.00	56.27	113	
Tetrachloroethene	ug/kg	50.00	59.38	119	
Toluene	ug/kg	50.00	52.84	106	
1,2,3-Trichlorobenzene	ug/kg	50.00	67.89	136	
1,2,4-Trichlorobenzene	ug/kg	50.00	69.01	138	
1,1,1-Trichloroethane	ug/kg	50.00	55.57	111	
1,1,2-Trichloroethane	ug/kg	50.00	58.22	116	
Trichloroethene	ug/kg	50.00	53.19	106	
Trichlorofluoromethane	ug/kg	50.00	48.93	98	
1,2,3-Trichloropropane	ug/kg	50.00	65.69	131	3
1,2,4-Trimethylbenzene	ug/kg	50.00	50.80	102	
1,3,5-Trimethylbenzene	ug/kg	50.00	49.28	99	
Vinyl acetate	ug/kg	100.00	68.76	69	
Vinyl chloride	ug/kg	50.00	40.77	82	

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## QUALITY CONTROL DATA

Lab Project Number: 92134250  
Client Project ID: Hatch 6620.01

---

LABORATORY CONTROL SAMPLE: 927816637

<u>Parameter</u>	<u>Units</u>	<u>Spike Conc.</u>	<u>LCS Result</u>	<u>LCS % Rec</u>	<u>Footnotes</u>
m&p-Xylene	ug/kg	100.00	108.0	108	
o-Xylene	ug/kg	50.00	52.14	104	
Toluene-d8 (S)				103	
4-Bromofluorobenzene (S)				99	
Dibromofluoromethane (S)				94	
1,2-Dichloroethane-d4 (S)				88	

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## QUALITY CONTROL DATA

Lab Project Number: 92134250  
Client Project ID: Hatch 6620.01

---

QC Batch: 175754	Analysis Method: % Moisture
QC Batch Method:	Analysis Description: Percent Moisture
Associated Lab Samples:	927799312      927799320

---

SAMPLE DUPLICATE: 927805739

Parameter	Units	927788786	DUP	Result	Result	RPD	Footnotes
Percent Moisture	%			16.40	16.60	1	

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Lab Project Number: 92134250  
Client Project ID: Hatch 6620.01

#### QUALITY CONTROL DATA PARAMETER FOOTNOTES

Consistent with EPA guidelines, unrounded concentrations are displayed and have been used to calculate % Rec and RPD values.

- LCS(D) Laboratory Control Sample (Duplicate)
- MS(D) Matrix Spike (Duplicate)
- DUP Sample Duplicate
- ND Not detected at or above adjusted reporting limit
- NC Not Calculable
- J Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit
- MDL Adjusted Method Detection Limit
- RPD Relative Percent Difference
- (S) Surrogate
- [1] RPD value was outside of control limits, however % Recoveries were acceptable. Samples for QC batch accepted based on % recoveries and completeness of QC data.
- [2] Acid surrogate recovery outside of control limits. The data was accepted based on valid recovery of the two remaining acid surrogates.
- [3] Recovery falls outside of QC limits, however, this compound is not found in the associated samples.

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Charlotte Certification IDs  
 NC Wastewater 12  
 NC Drinking Water 37706  
 SC 99006  
 FL NELAP E87627

Pace Analytical

# CHAIN-OF-CUSTODY / Analytical Request Document

The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be completed accurately.

## Section A

Required Client Information:

Company **Alpha Environmental**

Address **367 Dellwood Rd**

**Waynesville, NC 28786**

Email To: **Mrosone@alphaenviron.com**

Phone **828.226.6909** Fax **452.7028**

Requested Due Date/TAT:  
**STANDARD**

## Section B

Required Project Information:

Report To: **M. ROSONE**

Copy To: **"**

Purchase Order No.:

Project Name: **HATCH**

Project Number: **CL20-01**

## Section C

Invoice Information:

Attention: **M. ROSONE**

Company Name: **ALPHA**

Address: **Cane**

Pace Quote Reference:

Pace Project Manager: **LJP**

Pace Profile #:

Page: **1044030** of **1**

### REGULATORY AGENCY

NPDES

GROUND WATER

DRINKING WATER

UST

RCRA

Other \_\_\_\_\_

### SITE LOCATION

GA  IL  IN  MI  MN  NC  
 OH  SC  WI  OTHER \_\_\_\_\_

Filtered (Y/N)

Requested Analysis:

**8260**

**E2270**

**YPLI**

**ET-EL**

**92134250**

Pace Project Number

Lab I.D.

Residual Chlorine (Y/N)

## Section D Required Client Information

### SAMPLE ID

One Character per box.  
(A-Z, 0-9 / -)

Samples IDs MUST BE UNIQUE

Valid Matrix Codes

MATRIX

CODE

DRINKING WATER

DW

WATER

WT

WASTE WATER

WW

PRODUCT

P

SOIL/SOLID

SL

OIL

WIPE

WP

AIR

AR

OTHER

OT

TISSUE

TS

MATRIX CODE

G=GRAB

C=COMP

SAMPLE TYPE

C=COMB

DATE

TIME

DATE

TIME

COLLECTED

SAMPLE TEMP AT COLLECTION

# OF CONTAINERS

Preservatives

Unpreserved

H<sub>2</sub>SO<sub>4</sub>

HNO<sub>3</sub>

HCl

NaOH

Na<sub>2</sub>SO<sub>3</sub>

Methanol

Other

ITEM #

1

2

3

4

5

6

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12

COMPOSITE START COMPOSITE END/GRAB

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January 02, 2007

Mr. M. Rosone  
Alpha Environmental Sciences  
367 Dellwood Rd.  
Waynesville, NC 28786

RE: Lab Project Number: 92134424  
Client Project ID: ROBERTS ST HATCHERY 6620.01

Dear Mr. Rosone:

Enclosed are the analytical results for sample(s) received by the laboratory on December 18, 2006. Results reported herein conform to the most current NELAC standards, where applicable, unless otherwise narrated in the body of the report.

Inorganic Wet Chemistry and Metals Analyses were performed at our Pace Asheville laboratory and Organic testing was performed at our Pace Charlotte laboratory unless otherwise footnoted.

If you have any questions concerning this report please feel free to contact me.

Sincerely,



Lorri Patton  
[lorri.patton@pacelabs.com](mailto:lorri.patton@pacelabs.com)  
(828) 254-7176  
Project Manager

Enclosures

Asheville Certification IDs  
NC Wastewater 40  
NC Drinking Water 37712  
SC 99030  
FL NELAP E87648

## REPORT OF LABORATORY ANALYSIS

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Charlotte Certification IDs  
NC Wastewater 12  
NC Drinking Water 37706  
SC 99006  
FL NELAP E87627

Lab Project Number: 92134424  
Client Project ID: ROBERTS ST HATCHERY 6620.01

Lab Sample No: 927812008	Project Sample Number: 92134424-001	Date Collected: 12/18/06 14:50
Client Sample ID: HATCHERY MW-1	Matrix: Water	Date Received: 12/18/06 15:58

Parameters	Results	Units	Report Limit	Analyzed By	CAS No.	Qual	RegLmt
<b>GC/MS Semivolatiles</b>							
Extractables in Water by 625	Prep/Method: EPA 625 SF / EPA 625						
Acenaphthene	ND	ug/l	5.4	12/28/06 08:21 BET	83-32-9		
Acenaphthylene	ND	ug/l	5.4	12/28/06 08:21 BET	208-96-8		
Anthracene	ND	ug/l	5.4	12/28/06 08:21 BET	120-12-7		
Benzidine	ND	ug/l	54.	12/28/06 08:21 BET	92-87-5		
Benzo(k)fluoranthene	ND	ug/l	5.4	12/28/06 08:21 BET	207-08-9		
Benzo(b)fluoranthene	ND	ug/l	5.4	12/28/06 08:21 BET	205-99-2		
Benzo(a)anthracene	ND	ug/l	5.4	12/28/06 08:21 BET	56-55-3		
Benzo(g,h,i)perylene	ND	ug/l	5.4	12/28/06 08:21 BET	191-24-2		
Benzo(a)pyrene	ND	ug/l	5.4	12/28/06 08:21 BET	50-32-8		
4-Bromophenylphenyl ether	ND	ug/l	5.4	12/28/06 08:21 BET	101-55-3		
Butylbenzylphthalate	ND	ug/l	5.4	12/28/06 08:21 BET	85-68-7		
4-Chloro-3-methylphenol	ND	ug/l	5.4	12/28/06 08:21 BET	59-50-7		
bis(2-Chloroethoxy)methane	ND	ug/l	5.4	12/28/06 08:21 BET	111-91-1		
bis(2-Chloroethyl) ether	ND	ug/l	5.4	12/28/06 08:21 BET	111-44-4		
bis(2-Chloroisopropyl) ether	ND	ug/l	5.4	12/28/06 08:21 BET	39638-32-9		
2-Chloronaphthalene	ND	ug/l	5.4	12/28/06 08:21 BET	91-58-7		
2-Chlorophenol	ND	ug/l	5.4	12/28/06 08:21 BET	95-57-8		
4-Chlorophenylphenyl ether	ND	ug/l	5.4	12/28/06 08:21 BET	7005-72-3		
Chrysene	ND	ug/l	5.4	12/28/06 08:21 BET	218-01-9		
Dibenz(a,h)anthracene	ND	ug/l	5.4	12/28/06 08:21 BET	53-70-3		
1,2-Dichlorobenzene	ND	ug/l	5.4	12/28/06 08:21 BET	95-50-1		
1,3-Dichlorobenzene	ND	ug/l	5.4	12/28/06 08:21 BET	541-73-1		
1,4-Dichlorobenzene	ND	ug/l	5.4	12/28/06 08:21 BET	106-46-7		
3,3'-Dichlorobenzidine	ND	ug/l	11.	12/28/06 08:21 BET	91-94-1		
2,4-Dichlorophenol	ND	ug/l	5.4	12/28/06 08:21 BET	120-83-2		
Diethylphthalate	ND	ug/l	5.4	12/28/06 08:21 BET	84-66-2		
2,4-Dimethylphenol	ND	ug/l	5.4	12/28/06 08:21 BET	105-67-9		
Dimethylphthalate	ND	ug/l	5.4	12/28/06 08:21 BET	131-11-3		
Di-n-butylphthalate	ND	ug/l	5.4	12/28/06 08:21 BET	84-74-2		
4,6-Dinitro-2-methylphenol	ND	ug/l	27.	12/28/06 08:21 BET	534-52-1		
2,4-Dinitrophenol	ND	ug/l	27.	12/28/06 08:21 BET	51-28-5		
2,4-Dinitrotoluene	ND	ug/l	5.4	12/28/06 08:21 BET	121-14-2		
2,6-Dinitrotoluene	ND	ug/l	5.4	12/28/06 08:21 BET	606-20-2		
Di-n-octylphthalate	ND	ug/l	5.4	12/28/06 08:21 BET	117-84-0		
bis(2-Ethylhexyl)phthalate	ND	ug/l	5.4	12/28/06 08:21 BET	117-81-7		
Fluoranthene	ND	ug/l	5.4	12/28/06 08:21 BET	206-44-0		
Fluorene	ND	ug/l	5.4	12/28/06 08:21 BET	86-73-7		

Date: 01/02/07

Page: 1 of 17

Asheville Certification IDs  
 NC Wastewater 40  
 NC Drinking Water 37706  
 SC 99030  
 FL NELAP E87648

## REPORT OF LABORATORY ANALYSIS

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Charlotte Certification IDs  
 NC Wastewater 12  
 NC Drinking Water 37706  
 SC 99006  
 FL NELAP E87627

Lab Project Number: 92134424  
 Client Project ID: ROBERTS ST HATCHERY 6620.01

Lab Sample No: 927812008

Client Sample ID: HATCHERY MW-1

Project Sample Number: 92134424-001

Date Collected: 12/18/06 14:50

Matrix: Water

Date Received: 12/18/06 15:58

Parameters	Results	Units	Report Limit	Analyzed By	CAS No.	Qual	RegLmt
Hexachloro-1,3-butadiene	ND	ug/l	5.4	12/28/06 08:21 BET	87-68-3		
Hexachlorobenzene	ND	ug/l	5.4	12/28/06 08:21 BET	118-74-1		
Hexachlorocyclopentadiene	ND	ug/l	11.	12/28/06 08:21 BET	77-47-4		
Hexachloroethane	ND	ug/l	5.4	12/28/06 08:21 BET	67-72-1		
Indeno(1,2,3-cd)pyrene	ND	ug/l	5.4	12/28/06 08:21 BET	193-39-5		
Isophorone	ND	ug/l	5.4	12/28/06 08:21 BET	78-59-1		
Naphthalene	ND	ug/l	5.4	12/28/06 08:21 BET	91-20-3		
Nitrobenzene	ND	ug/l	5.4	12/28/06 08:21 BET	98-95-3		
2-Nitrophenol	ND	ug/l	5.4	12/28/06 08:21 BET	88-75-5		
4-Nitrophenol	ND	ug/l	27.	12/28/06 08:21 BET	100-02-7		
N-Nitrosodimethylamine	ND	ug/l	5.4	12/28/06 08:21 BET	62-75-9		
N-Nitroso-di-n-propylamine	ND	ug/l	5.4	12/28/06 08:21 BET	621-64-7		
N-Nitrosodiphenylamine	ND	ug/l	5.4	12/28/06 08:21 BET	86-30-6		
Pentachlorophenol	ND	ug/l	27.	12/28/06 08:21 BET	87-86-5		
Phenanthrene	ND	ug/l	5.4	12/28/06 08:21 BET	85-01-8		
Phenol	ND	ug/l	5.4	12/28/06 08:21 BET	108-95-2		
Pyrene	ND	ug/l	5.4	12/28/06 08:21 BET	129-00-0		
1,2,4-Trichlorobenzene	ND	ug/l	5.4	12/28/06 08:21 BET	120-82-1		
2,4,6-Trichlorophenol	ND	ug/l	5.4	12/28/06 08:21 BET	88-06-2		
Nitrobenzene-d5 (S)	56	%		12/28/06 08:21 BET	4165-60-0		
2-Fluorobiphenyl (S)	58	%		12/28/06 08:21 BET	321-60-8		
Terphenyl-d14 (S)	62	%		12/28/06 08:21 BET	1718-51-0		
Phenol-d5 (S)	24	%		12/28/06 08:21 BET	4165-62-2		
2-Fluorophenol (S)	32	%		12/28/06 08:21 BET	367-12-4		
2,4,6-Tribromophenol (S)	49	%		12/28/06 08:21 BET	118-79-6		
Date Extracted	12/21/06			12/21/06			

### GC Semivolatiles

EPH in Water by Mass. Method	Prep/Method:	EPA 3510 / EPH			
Aliphatic (C9-C18)	ND	ug/l	100	12/30/06 01:11 MGB	
Aliphatic (C19-C36)	ND	ug/l	100	12/30/06 01:11 MGB	
Aromatic (C11-C22)	ND	ug/l	100	12/30/06 01:11 MGB	
Nonatriacontane (S)	37	%		12/30/06 01:11 MGB	7194-86-7
o-Terphenyl (S)	90	%		12/30/06 01:11 MGB	84-15-1
2-Fluorobiphenyl (S)	90	%		12/30/06 01:11 MGB	321-60-8
2-Bromonaphthalene (S)	95	%		12/30/06 01:11 MGB	580-13-2
Date Extracted	12/29/06 09:30			12/29/06 09:30	

Date: 01/02/07

Page: 2 of 17

### Asheville Certification IDs

 NC Wastewater 40  
 NC Drinking Water 37712  
 SC 99030  
 FL NELAP E87648

### REPORT OF LABORATORY ANALYSIS

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### Charlotte Certification IDs

 NC Wastewater 12  
 NC Drinking Water 37706  
 SC 99006  
 FL NELAP E87627

Lab Project Number: 92134424  
 Client Project ID: ROBERTS ST HATCHERY 6620.01

Lab Sample No:	927812008	Project Sample Number:	92134424-001	Date Collected:	12/18/06 14:50
Client Sample ID:	HATCHERY MW-1	Matrix:	Water	Date Received:	12/18/06 15:58

Parameters	Results	Units	Report Limit	Analyzed By	CAS No.	Qual	RegLmt
------------	---------	-------	--------------	-------------	---------	------	--------

### GC Volatiles

Halogen. & Aromatic Vol. Orgs. Method: EPA 601/602

Benzene	ND	ug/l	1.0	12/20/06 23:45 PPM	71-43-2
Bromodichloromethane	ND	ug/l	1.0	12/20/06 23:45 PPM	75-27-4
Bromoform	ND	ug/l	1.0	12/20/06 23:45 PPM	75-25-2
Bromomethane	ND	ug/l	1.0	12/20/06 23:45 PPM	74-83-9
Carbon tetrachloride	ND	ug/l	1.0	12/20/06 23:45 PPM	56-23-5
Chlorobenzene	ND	ug/l	1.0	12/20/06 23:45 PPM	108-90-7
Chloroethane	ND	ug/l	1.0	12/20/06 23:45 PPM	75-00-3
Chloroform	ND	ug/l	1.0	12/20/06 23:45 PPM	67-66-3
Chloromethane	ND	ug/l	2.0	12/20/06 23:45 PPM	74-87-3
Dibromochloromethane	ND	ug/l	1.0	12/20/06 23:45 PPM	124-48-1
1,2-Dichlorobenzene	ND	ug/l	1.0	12/20/06 23:45 PPM	95-50-1
1,3-Dichlorobenzene	ND	ug/l	1.0	12/20/06 23:45 PPM	541-73-1
1,4-Dichlorobenzene	ND	ug/l	1.0	12/20/06 23:45 PPM	106-46-7
Dichlorodifluoromethane	ND	ug/l	1.0	12/20/06 23:45 PPM	75-71-8
1,1-Dichloroethane	ND	ug/l	1.0	12/20/06 23:45 PPM	75-34-3
1,2-Dichloroethane	ND	ug/l	1.0	12/20/06 23:45 PPM	107-06-2
1,1-Dichloroethene	ND	ug/l	1.0	12/20/06 23:45 PPM	75-35-4
trans-1,2-Dichloroethene	ND	ug/l	1.0	12/20/06 23:45 PPM	156-60-5
1,2-Dichloropropane	ND	ug/l	1.0	12/20/06 23:45 PPM	78-87-5
cis-1,3-Dichloropropene	ND	ug/l	1.0	12/20/06 23:45 PPM	10061-01-5
trans-1,3-Dichloropropene	ND	ug/l	1.0	12/20/06 23:45 PPM	10061-02-6
Diisopropyl ether	ND	ug/l	1.0	12/20/06 23:45 PPM	108-20-3
Ethylbenzene	ND	ug/l	1.0	12/20/06 23:45 PPM	100-41-4
Methylene chloride	ND	ug/l	2.0	12/20/06 23:45 PPM	75-09-2
Methyl-tert-butyl ether	ND	ug/l	1.0	12/20/06 23:45 PPM	1634-04-4
1,1,2,2-Tetrachloroethane	ND	ug/l	1.0	12/20/06 23:45 PPM	79-34-5
Tetrachloroethene	48.	ug/l	1.0	12/20/06 23:45 PPM	127-18-4
Toluene	ND	ug/l	1.0	12/20/06 23:45 PPM	108-88-3
1,1,1-Trichloroethane	ND	ug/l	1.0	12/20/06 23:45 PPM	71-55-6
1,1,2-Trichloroethane	ND	ug/l	1.0	12/20/06 23:45 PPM	79-00-5
Trichloroethene	2.9	ug/l	1.0	12/20/06 23:45 PPM	79-01-6
Trichlorofluoromethane	ND	ug/l	1.0	12/20/06 23:45 PPM	75-69-4
Vinyl chloride	ND	ug/l	1.0	12/20/06 23:45 PPM	75-01-4
m&p-Xylene	ND	ug/l	2.0	12/20/06 23:45 PPM	
o-Xylene	ND	ug/l	1.0	12/20/06 23:45 PPM	95-47-6
1-Chloro-3-fluorobenzene (S)	113	%		12/20/06 23:45 PPM	625-98-9

Date: 01/02/07

Page: 3 of 17

Asheville Certification IDs  
 NC Wastewater 40  
 NC Drinking Water 37712  
 SC 99030  
 FL NELAP E87648

## REPORT OF LABORATORY ANALYSIS

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Charlotte Certification IDs  
 NC Wastewater 12  
 NC Drinking Water 37706  
 SC 99006  
 FL NELAP E87627

Lab Project Number: 92134424

Client Project ID: ROBERTS ST HATCHERY 6620.01

Lab Sample No: 927812008

Client Sample ID: HATCHERY MW-1

Project Sample Number: 92134424-001

Matrix: Water

Date Collected: 12/18/06 14:50

Date Received: 12/18/06 15:58

<u>Parameters</u>	<u>Results</u>	<u>Units</u>	<u>Report Limit</u>	<u>Analyzed By</u>	<u>CAS No.</u>	<u>Qual</u>	<u>ReqLmt</u>
VPH in Water by Mass. Method	Method: VPH						
Aliphatic (C5-C8)	ND	ug/l	100	12/26/06 15:40 DHW			
Aliphatic (C9-C12)	ND	ug/l	100	12/26/06 15:40 DHW			
Aromatic (C9-C10)	ND	ug/l	100	12/26/06 15:40 DHW			
2,5-Dibromotoluene (PID)(S)	96	%		12/26/06 15:40 DHW			
2,5-Dibromotoluene (FID)(S)	98	%		12/26/06 15:40 DHW			

Date: 01/02/07

Page: 4 of 17

Asheville Certification IDs  
 NC Wastewater 40  
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Charlotte Certification IDs  
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 NC Drinking Water 37706  
 SC 99006  
 FL NELAP E87627

Lab Project Number: 92134424  
 Client Project ID: ROBERTS ST HATCHERY 6620.01

## PARAMETER FOOTNOTES

Method 9071B modified to use ASE.

All pH, Free Chlorine, Total Chlorine and Ferrous Iron analyses conducted outside of EPA recommended immediate hold time.

Depending on the moisture content the PRLs can be elevated for all soil samples reported on a dry weight basis.

2-Chloroethyl vinyl ether has been shown to degrade in the presence of acid.

ND	Not detected at or above adjusted reporting limit
NC	Not Calculable
J	Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit
MDL	Adjusted Method Detection Limit
(S)	Surrogate

Date: 01/02/07

Page: 5 of 17

Asheville Certification IDs  
 NC Wastewater 40  
 NC Drinking Water 37712  
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Charlotte Certification IDs  
 NC Wastewater 12  
 NC Drinking Water 37706  
 SC 99006  
 FL NELAP E87627

## QUALITY CONTROL DATA

Lab Project Number: 92134424

Client Project ID: ROBERTS ST HATCHERY 6620.01

QC Batch: 176712  
 QC Batch Method: EPA 3510  
 Associated Lab Samples: 927812008

Analysis Method: EPH  
 Analysis Description: EPH in Water by Mass. Method

METHOD BLANK: 927842344  
 Associated Lab Samples: 927812008

<u>Parameter</u>	<u>Units</u>	<u>Blank</u>	<u>Reporting</u>	
		<u>Result</u>	<u>Limit</u>	<u>Footnotes</u>
Aliphatic (C9-C18)	ug/l	ND	100	
Aliphatic (C19-C36)	ug/l	ND	100	
Aromatic (C11-C22)	ug/l	ND	100	
Nonatriacontane (S)	×	28		
o-Terphenyl (S)	×	90		
2-Fluorobiphenyl (S)	×	89		
2-Bromonaphthalene (S)	×	82		

LABORATORY CONTROL SAMPLE &amp; LCSD: 927842351 927842369

<u>Parameter</u>	<u>Units</u>	<u>Spike</u>	<u>LCS</u>	<u>LCSD</u>	<u>LCS</u>	<u>LCSD</u>	<u>% Rec</u>	<u>% Rec</u>	<u>RPD</u>	<u>Footnotes</u>
		<u>Conc.</u>	<u>Result</u>	<u>Result</u>						
Aliphatic (C9-C18)	ug/l	300.00	24.85	24.85	8	8	0			
Aliphatic (C19-C36)	ug/l	400.00	332.7	344.4	83	86	3			
Aromatic (C11-C22)	ug/l	850.00	5.862		1					
Nonatriacontane (S)					32	32				
o-Terphenyl (S)					116	115				
2-Fluorobiphenyl (S)					94	96				
2-Bromonaphthalene (S)					95	99				

Date: 01/02/07

Page: 6 of 17

Asheville Certification IDs  
 NC Wastewater 40  
 NC Drinking Water 37712  
 SC 99030  
 FL NELAP E87648

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Charlotte Certification IDs  
 NC Wastewater 12  
 NC Drinking Water 37706  
 SC 99006  
 FL NELAP E87627

## QUALITY CONTROL DATA

Lab Project Number: 92134424

Client Project ID: ROBERTS ST HATCHERY 6620.01

QC Batch: 176064  
 QC Batch Method: EPA 601/602  
 Associated Lab Samples: 927812008

Analysis Method: EPA 601/602  
 Analysis Description: Halogen. & Aromatic Vol. Orgs.

METHOD BLANK: 927817668  
 Associated Lab Samples: 927812008

Parameter	Units	Blank	Reporting	
		Result	Limit	Footnotes
Benzene	ug/l	ND	1.0	
Bromodichloromethane	ug/l	ND	1.0	
Bromoform	ug/l	ND	1.0	
Bromomethane	ug/l	ND	1.0	
Carbon tetrachloride	ug/l	ND	1.0	
Chlorobenzene	ug/l	ND	1.0	
Chloroethane	ug/l	ND	1.0	
Chloroform	ug/l	ND	1.0	
Chloromethane	ug/l	ND	2.0	
Dibromochloromethane	ug/l	ND	1.0	
1,2-Dichlorobenzene	ug/l	ND	1.0	
1,3-Dichlorobenzene	ug/l	ND	1.0	
1,4-Dichlorobenzene	ug/l	ND	1.0	
Dichlorodifluoromethane	ug/l	ND	1.0	
1,1-Dichloroethane	ug/l	ND	1.0	
1,2-Dichloroethane	ug/l	ND	1.0	
1,1-Dichloroethene	ug/l	ND	1.0	
trans-1,2-Dichloroethene	ug/l	ND	1.0	
1,2-Dichloropropane	ug/l	ND	1.0	
cis-1,3-Dichloropropene	ug/l	ND	1.0	
trans-1,3-Dichloropropene	ug/l	ND	1.0	
Diisopropyl ether	ug/l	ND	1.0	
Ethylbenzene	ug/l	ND	1.0	
Methylene chloride	ug/l	ND	2.0	
Methyl-tert-butyl ether	ug/l	ND	1.0	
1,1,2,2-Tetrachloroethane	ug/l	ND	1.0	
Tetrachloroethene	ug/l	ND	1.0	
Toluene	ug/l	ND	1.0	
1,1,1-Trichloroethane	ug/l	ND	1.0	
1,1,2-Trichloroethane	ug/l	ND	1.0	
Trichloroethene	ug/l	ND	1.0	

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**QUALITY CONTROL DATA**

Lab Project Number: 92134424

Client Project ID: ROBERTS ST HATCHERY 6620.01

METHOD BLANK: 927817668

Associated Lab Samples: 927812008

Parameter	Units	Blank Result	Reporting Limit	Footnotes
Trichlorofluoromethane	ug/l	ND	1.0	
Vinyl chloride	ug/l	ND	1.0	
m&p-Xylene	ug/l	ND	2.0	
o-Xylene	ug/l	ND	1.0	
1-Chloro-3-fluorobenzene (S)	%	97		

LABORATORY CONTROL SAMPLE: 927817676

Parameter	Units	Spike Conc.	LCS Result	% Rec	Footnotes
Benzene	ug/l	20.00	20.79	104	
Bromodichloromethane	ug/l	20.00	19.14	96	
Bromoform	ug/l	20.00	19.70	98	
Bromomethane	ug/l	20.00	19.65	98	
Carbon tetrachloride	ug/l	20.00	13.05	65	
Chlorobenzene	ug/l	20.00	20.14	101	
Chloroethane	ug/l	20.00	19.63	98	
Chloroform	ug/l	20.00	14.55	73	
Chloromethane	ug/l	20.00	20.36	102	
Dibromochloromethane	ug/l	20.00	19.59	98	
1,2-Dichlorobenzene	ug/l	20.00	18.99	95	
1,3-Dichlorobenzene	ug/l	20.00	19.42	97	
1,4-Dichlorobenzene	ug/l	20.00	20.90	105	
Dichlorodifluoromethane	ug/l	20.00	20.67	103	
1,1-Dichloroethane	ug/l	20.00	21.36	107	
1,2-Dichloroethane	ug/l	20.00	22.86	114	
1,1-Dichloroethene	ug/l	20.00	17.12	86	
trans-1,2-Dichloroethene	ug/l	20.00	16.64	83	
1,2-Dichloropropane	ug/l	20.00	21.14	106	
cis-1,3-Dichloropropene	ug/l	20.00	17.14	86	
trans-1,3-Dichloropropene	ug/l	20.00	17.65	88	
Diisopropyl ether	ug/l	20.00	19.86	99	
Ethylbenzene	ug/l	20.00	19.58	98	
Methylene chloride	ug/l	20.00	18.91	95	
Methyl-tert-butyl ether	ug/l	20.00	19.85	99	

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**QUALITY CONTROL DATA**

Lab Project Number: 92134424

Client Project ID: ROBERTS ST HATCHERY 6620.01

LABORATORY CONTROL SAMPLE: 927817676

Parameter	Units	Spike Conc.	LCS Result	% Rec	LCS Footnotes
1,1,2,2-Tetrachloroethane	ug/l	20.00	19.42	97	
Tetrachloroethene	ug/l	20.00	19.03	95	
Toluene	ug/l	20.00	20.59	103	
1,1,1-Trichloroethane	ug/l	20.00	17.61	88	
1,1,2-Trichloroethane	ug/l	20.00	20.41	102	
Trichloroethene	ug/l	20.00	23.67	118	
Trichlorofluoromethane	ug/l	20.00	18.68	93	
Vinyl chloride	ug/l	20.00	19.93	100	
m&p-Xylene	ug/l	40.00	42.63	107	
o-Xylene	ug/l	20.00	20.72	104	
1-Chloro-3-fluorobenzene (S)				102	

MATRIX SPIKE: 927818823

Parameter	Units	927805879 Result	Spike Conc.	MS Result	MS % Rec	MS Footnotes
Benzene	ug/l	0	20.00	21.18	106	
Bromodichloromethane	ug/l	0	20.00	21.60	108	
Bromoform	ug/l	0	20.00	16.71	84	
Bromomethane	ug/l	0	20.00	17.21	86	
Carbon tetrachloride	ug/l	0	20.00	19.55	98	
Chlorobenzene	ug/l	0	20.00	20.21	101	
Chloroethane	ug/l	0	20.00	19.78	99	
Chloroform	ug/l	0	20.00	18.23	91	
Chloromethane	ug/l	0	20.00	19.84	99	
Dibromochloromethane	ug/l	0	20.00	19.23	96	
1,2-Dichlorobenzene	ug/l	0	20.00	18.96	95	
1,3-Dichlorobenzene	ug/l	0	20.00	19.80	99	
1,4-Dichlorobenzene	ug/l	0	20.00	20.22	101	
Dichlorodifluoromethane	ug/l	0	20.00	18.64	93	
1,1-Dichloroethane	ug/l	5.709	20.00	30.03	122	
1,2-Dichloroethane	ug/l	0	20.00	23.05	115	
1,1-Dichloroethene	ug/l	11.75	20.00	33.64	110	
trans-1,2-Dichloroethene	ug/l	0	20.00	21.52	108	
1,2-Dichloropropane	ug/l	2.342	20.00	26.25	120	
cis-1,3-Dichloropropene	ug/l	0	20.00	17.51	88	

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**QUALITY CONTROL DATA**

Lab Project Number: 92134424

Client Project ID: ROBERTS ST HATCHERY 6620.01

MATRIX SPIKE: 927818823

<u>Parameter</u>	<u>Units</u>	927805879 <u>Result</u>	Spike	MS	MS	
			Conc.	<u>Result</u>	% Rec	Footnotes
trans-1,3-Dichloropropene	ug/l	0	20.00	18.26	91	
Diisopropyl ether	ug/l	0	20.00	19.50	98	
Ethylbenzene	ug/l	0	20.00	19.71	98	
Methylene chloride	ug/l	0	20.00	22.43	112	
Methyl-tert-butyl ether	ug/l	0	20.00	19.05	95	
1,1,2,2-Tetrachloroethane	ug/l	0	20.00	19.83	99	
Tetrachloroethene	ug/l	0	20.00	21.89	110	
Toluene	ug/l	0	20.00	21.24	106	
1,1,1-Trichloroethane	ug/l	6.183	20.00	27.47	106	
1,1,2-Trichloroethane	ug/l	0	20.00	19.13	96	
Trichloroethene	ug/l	0	20.00	24.56	123	
Trichlorofluoromethane	ug/l	9.621	20.00	25.96	82	
Vinyl chloride	ug/l	0	20.00	18.42	92	
m&p-Xylene	ug/l	0	40.00	43.35	108	
o-Xylene	ug/l	0	20.00	20.21	101	
1-Chloro-3-fluorobenzene (S)					104	

SAMPLE DUPLICATE: 927818831

<u>Parameter</u>	<u>Units</u>	927814004 <u>Result</u>	DUP	<u>Footnotes</u>
			<u>Result</u>	
Benzene	ug/l	1300	1200	8
Bromodichloromethane	ug/l	ND	ND	NC
Bromoform	ug/l	ND	ND	NC
Bromomethane	ug/l	ND	ND	NC
Carbon tetrachloride	ug/l	ND	ND	NC
Chlorobenzene	ug/l	ND	ND	NC
Chloroethane	ug/l	ND	ND	NC
Chloroform	ug/l	ND	ND	NC
Chloromethane	ug/l	ND	ND	NC
Dibromochloromethane	ug/l	ND	ND	NC
1,2-Dichlorobenzene	ug/l	ND	ND	NC
1,3-Dichlorobenzene	ug/l	ND	ND	NC
1,4-Dichlorobenzene	ug/l	ND	ND	NC
Dichlorodifluoromethane	ug/l	ND	ND	NC
1,1-Dichloroethane	ug/l	ND	ND	NC

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## QUALITY CONTROL DATA

Lab Project Number: 92134424

Client Project ID: ROBERTS ST HATCHERY 6620.01

SAMPLE DUPLICATE: 927818831

Parameter	Units	927814004		RPD	Footnotes
		Result	DUP Result		
1,2-Dichloroethane	ug/l	ND	ND	NC	
1,1-Dichloroethene	ug/l	ND	ND	NC	
trans-1,2-Dichloroethene	ug/l	ND	ND	NC	
1,2-Dichloropropane	ug/l	ND	ND	NC	
cis-1,3-Dichloropropene	ug/l	ND	ND	NC	
trans-1,3-Dichloropropene	ug/l	ND	ND	NC	
Diisopropyl ether	ug/l	ND	ND	NC	
Ethylbenzene	ug/l	460.0	430.0	6	
Methylene chloride	ug/l	ND	ND	NC	
Methyl-tert-butyl ether	ug/l	540.0	520.0	4	
1,1,2,2-Tetrachloroethane	ug/l	ND	ND	NC	
Tetrachloroethene	ug/l	ND	ND	NC	
Toluene	ug/l	4500	4200	6	
1,1,1-Trichloroethane	ug/l	ND	ND	NC	
1,1,2-Trichloroethane	ug/l	ND	ND	NC	
Trichloroethene	ug/l	ND	ND	NC	
Trichlorofluoromethane	ug/l	ND	ND	NC	
Vinyl chloride	ug/l	ND	ND	NC	
m&p-Xylene	ug/l	1900	1800	6	
o-Xylene	ug/l	990.0	930.0	6	
1-Chloro-3-fluorobenzene (S)	%	98	98		

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## QUALITY CONTROL DATA

Lab Project Number: 92134424

Client Project ID: ROBERTS ST HATCHERY 6620.01

QC Batch: 176377	Analysis Method: VPH
QC Batch Method: VPH	Analysis Description: VPH in Water by Mass. Method
Associated Lab Samples:	927812008

METHOD BLANK: 927832634

Associated Lab Samples: 927812008

<u>Parameter</u>	<u>Units</u>	<u>Blank</u>		<u>Reporting</u>	
		<u>Result</u>	<u>Limit</u>	<u>Footnotes</u>	
Aliphatic (C5-C8)	ug/l	ND	100		
Aliphatic (C9-C12)	ug/l	ND	100		
Aromatic (C9-C10)	ug/l	ND	100		
2,5-Dibromotoluene (PID)(S)	%	101			
2,5-Dibromotoluene (FID)(S)	%	100			

LABORATORY CONTROL SAMPLE & LCSD: 927832642 927832659

<u>Parameter</u>	<u>Units</u>	<u>Spike Conc.</u>	<u>LCS Result</u>	<u>LCSD Result</u>	<u>LCS % Rec</u>	<u>LCSD % Rec</u>	<u>RPD</u>	<u>Footnotes</u>
Aliphatic (C5-C8)	ug/l	400.00	334.1	379.3	84	95	13	
Aliphatic (C9-C12)	ug/l	100.00	89.27	95.76	89	96	7	
Aromatic (C9-C10)	ug/l	100.00	109.3	106.4	109	106	3	
2,5-Dibromotoluene (PID)(S)					105	99		
2,5-Dibromotoluene (FID)(S)					91	88		

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## QUALITY CONTROL DATA

Lab Project Number: 92134424

Client Project ID: ROBERTS ST HATCHERY 6620.01

 QC Batch: 176178  
 QC Batch Method: EPA 625 SF  
 Associated Lab Samples: 927812008

 Analysis Method: EPA 625  
 Analysis Description: Extractables in Water by 625

 METHOD BLANK: 927822510  
 Associated Lab Samples: 927812008

<u>Parameter</u>	<u>Units</u>	<u>Blank</u>	<u>Reporting</u>	
		<u>Result</u>	<u>Limit</u>	<u>Footnotes</u>
Acenaphthene	ug/l	ND	5.0	
Acenaphthylene	ug/l	ND	5.0	
Anthracene	ug/l	ND	5.0	
Benzidine	ug/l	ND	50.	
Benzo(k)fluoranthene	ug/l	ND	5.0	
Benzo(b)fluoranthene	ug/l	ND	5.0	
Benzo(a)anthracene	ug/l	ND	5.0	
Benzo(g,h,i)perylene	ug/l	ND	5.0	
Benzo(a)pyrene	ug/l	ND	5.0	
4-Bromophenylphenyl ether	ug/l	ND	5.0	
Butylbenzylphthalate	ug/l	ND	5.0	
4-Chloro-3-methylphenol	ug/l	ND	5.0	
bis(2-Chloroethoxy)methane	ug/l	ND	5.0	
bis(2-Chloroethyl) ether	ug/l	ND	5.0	
bis(2-Chloroisopropyl) ether	ug/l	ND	5.0	
2-Chloronaphthalene	ug/l	ND	5.0	
2-Chlorophenol	ug/l	ND	5.0	
4-Chlorophenylphenyl ether	ug/l	ND	5.0	
Chrysene	ug/l	ND	5.0	
Dibenz(a,h)anthracene	ug/l	ND	5.0	
1,2-Dichlorobenzene	ug/l	ND	5.0	
1,3-Dichlorobenzene	ug/l	ND	5.0	
1,4-Dichlorobenzene	ug/l	ND	5.0	
3,3'-Dichlorobenzidine	ug/l	ND	10.	
2,4-Dichlorophenol	ug/l	ND	5.0	
Diethylphthalate	ug/l	ND	5.0	
2,4-Dimethylphenol	ug/l	ND	5.0	
Dimethylphthalate	ug/l	ND	5.0	
Di-n-butylphthalate	ug/l	ND	5.0	
4,6-Dinitro-2-methylphenol	ug/l	ND	25.	
2,4-Dinitrophenol	ug/l	ND	25.	

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**QUALITY CONTROL DATA**

Lab Project Number: 92134424

Client Project ID: ROBERTS ST HATCHERY 6620.01

METHOD BLANK: 927822510

Associated Lab Samples: 927812008

<u>Parameter</u>	<u>Units</u>	<u>Blank Result</u>	<u>Reporting Limit</u>	<u>Footnotes</u>
2,4-Dinitrotoluene	ug/l	ND	5.0	
2,6-Dinitrotoluene	ug/l	ND	5.0	
Di-n-octylphthalate	ug/l	ND	5.0	
bis(2-Ethylhexyl)phthalate	ug/l	ND	5.0	
Fluoranthene	ug/l	ND	5.0	
Fluorene	ug/l	ND	5.0	
Hexachloro-1,3-butadiene	ug/l	ND	5.0	
Hexachlorobenzene	ug/l	ND	5.0	
Hexachlorocyclopentadiene	ug/l	ND	10.	
Hexachloroethane	ug/l	ND	5.0	
Indeno(1,2,3-cd)pyrene	ug/l	ND	5.0	
Isophorone	ug/l	ND	5.0	
Naphthalene	ug/l	ND	5.0	
Nitrobenzene	ug/l	ND	5.0	
2-Nitrophenol	ug/l	ND	5.0	
4-Nitrophenol	ug/l	ND	25.	
N-Nitrosodimethylamine	ug/l	ND	5.0	
N-Nitroso-di-n-propylamine	ug/l	ND	5.0	
N-Nitrosodiphenylamine	ug/l	ND	5.0	
Pentachlorophenol	ug/l	ND	25.	
Phenanthrene	ug/l	ND	5.0	
Phenol	ug/l	ND	5.0	
Pyrene	ug/l	ND	5.0	
1,2,4-Trichlorobenzene	ug/l	ND	5.0	
2,4,6-Trichlorophenol	ug/l	ND	5.0	
Nitrobenzene-d5 (S)	%	44		
2-Fluorobiphenyl (S)	%	54		
Terphenyl-d14 (S)	%	56		
Phenol-d5 (S)	%	19		
2-Fluorophenol (S)	%	34		
2,4,6-Tribromophenol (S)	%	61		

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## QUALITY CONTROL DATA

Lab Project Number: 92134424

Client Project ID: ROBERTS ST HATCHERY 6620.01

LABORATORY CONTROL SAMPLE: 927822528

Parameter	Units	Spike Conc.	LCS Result	% Rec	Footnotes
Acenaphthene	ug/l	50.00	35.55	71	
Acenaphthylene	ug/l	50.00	35.14	70	
Anthracene	ug/l	50.00	35.03	70	
Benzidine	ug/l	100.00	3.562	4	1
Benzo(k)fluoranthene	ug/l	50.00	31.90	64	
Benzo(b)fluoranthene	ug/l	50.00	31.80	64	
Benzo(a)anthracene	ug/l	50.00	32.05	64	
Benzo(g,h,i)perylene	ug/l	50.00	34.43	69	
Benzo(a)pyrene	ug/l	50.00	36.05	72	
4-Bromophenylphenyl ether	ug/l	50.00	34.36	69	
Butylbenzylphthalate	ug/l	50.00	33.11	66	
4-Chloro-3-methylphenol	ug/l	50.00	29.03	58	
bis(2-Chloroethoxy)methane	ug/l	50.00	28.11	56	
bis(2-Chloroethyl) ether	ug/l	50.00	27.99	56	
bis(2-Chloroisopropyl) ether	ug/l	50.00	26.95	54	
2-Chloronaphthalene	ug/l	50.00	33.94	68	
2-Chlorophenol	ug/l	50.00	26.22	52	
4-Chlorophenylphenyl ether	ug/l	50.00	36.11	72	
Chrysene	ug/l	50.00	33.26	66	
Dibenz(a,h)anthracene	ug/l	50.00	33.62	67	
1,2-Dichlorobenzene	ug/l	50.00	26.07	52	
1,3-Dichlorobenzene	ug/l	50.00	24.25	48	
1,4-Dichlorobenzene	ug/l	50.00	25.76	52	
3,3'-Dichlorobenzidine	ug/l	100.00	27.53	28	
2,4-Dichlorophenol	ug/l	50.00	26.83	54	
Diethylphthalate	ug/l	50.00	36.74	74	
2,4-Dimethylphenol	ug/l	50.00	25.88	52	
Dimethylphthalate	ug/l	50.00	35.52	71	
Di-n-butylphthalate	ug/l	50.00	35.68	71	
4,6-Dinitro-2-methylphenol	ug/l	50.00	35.42	71	
2,4-Dinitrophenol	ug/l	50.00	42.94	86	
2,4-Dinitrotoluene	ug/l	50.00	37.19	74	
2,6-Dinitrotoluene	ug/l	50.00	35.59	71	
Di-n-octylphthalate	ug/l	50.00	33.78	68	
bis(2-Ethylhexyl)phthalate	ug/l	50.00	30.67	61	
Fluoranthene	ug/l	50.00	34.55	69	
Fluorene	ug/l	50.00	35.80	72	

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**QUALITY CONTROL DATA**

Lab Project Number: 92134424

Client Project ID: ROBERTS ST HATCHERY 6620.01

LABORATORY CONTROL SAMPLE: 927822528

Parameter	Units	Spike Conc.	LCS Result	% Rec	Footnotes
Hexachloro-1,3-butadiene	ug/l	50.00	23.54	47	
Hexachlorobenzene	ug/l	50.00	34.55	69	
Hexachlorocyclopentadiene	ug/l	50.00	32.27	64	
Hexachloroethane	ug/l	50.00	26.45	53	
Indeno(1,2,3-cd)pyrene	ug/l	50.00	34.19	68	
Isophorone	ug/l	50.00	36.89	74	
Naphthalene	ug/l	50.00	23.55	47	
Nitrobenzene	ug/l	50.00	25.89	52	
2-Nitrophenol	ug/l	50.00	26.10	52	
4-Nitrophenol	ug/l	50.00	12.37	25	
N-Nitrosodimethylamine	ug/l	50.00	22.22	44	
N-Nitroso-di-n-propylamine	ug/l	50.00	30.75	62	
N-Nitrosodiphenylamine	ug/l	50.00	35.18	70	
Pentachlorophenol	ug/l	50.00	28.12	56	
Phanthrene	ug/l	50.00	33.51	67	
Phenol	ug/l	50.00	10.68	21	
Pyrene	ug/l	50.00	31.44	63	
1,2,4-Trichlorobenzene	ug/l	50.00	23.71	47	
2,4,6-Trichlorophenol	ug/l	50.00	37.70	75	
Nitrobenzene-d5 (S)			47		
2-Fluorobiphenyl (S)			64		
Terphenyl-d14 (S)			58		
Phenol-d5 (S)			22		
2-Fluorophenol (S)			36		
2,4,6-Tribromophenol (S)			74		

Date: 01/02/07

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Asheville Certification IDs  
 NC Wastewater 40  
 NC Drinking Water 37712  
 SC 99030  
 FL NELAP E87648

**REPORT OF LABORATORY ANALYSIS**

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Charlotte Certification IDs  
 NC Wastewater 12  
 NC Drinking Water 37706  
 SC 99006  
 FL NELAP E87627

Lab Project Number: 92134424  
 Client Project ID: ROBERTS ST HATCHERY 6620.01

## QUALITY CONTROL DATA PARAMETER FOOTNOTES

Consistent with EPA guidelines, unrounded concentrations are displayed and have been used to calculate % Rec and RPD values.

- LCS(D) Laboratory Control Sample (Duplicate)
- MS(D) Matrix Spike (Duplicate)
- DUP Sample Duplicate
- ND Not detected at or above adjusted reporting limit
- NC Not Calculable
- J Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit
- MDL Adjusted Method Detection Limit
- RPD Relative Percent Difference
- (S) Surrogate
- [1] The surrogate and/or spike recovery was outside acceptance limits.

Date: 01/02/07

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Asheville Certification IDs  
 NC Wastewater 40  
 NC Drinking Water 37712  
 SC 99030  
 FL NELAP E87648

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 NC Wastewater 12  
 NC Drinking Water 37706  
 SC 99006  
 FL NELAP E87627

Pace Analytical®

# CHAIN-OF-CUSTODY / Analytical Request Document

The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be completed accurately.

## Section A

Required Client Information:

Company **Alpha Environmental Sci.**

Address **P O Box 31**

**WAYNESVILLE, NC 28786**

Email To: **Moore@alphaenvironmental.com**

Phone **(828)452-3449** Fax

Requested Due Date/TAT:

## Section B

Required Project Information:

Report To: **Roger-Matt Rosone**

Copy To:

## Section C

Invoice Information:

Attention: **Jenny Holtsclaw**

Company Name: **Same**

Address:

Purchase Order No.:

Pace Quote Reference:

Pace Project Manager:

Pace Profile #:

Page: **of**

**1047202**

### REGULATORY AGENCY

NPDES

GROUND WATER

DRINKING WATER

UST

RCRA

Other \_\_\_\_\_

### SITE LOCATION

GA

IL

IN

MI

MN

NC

OH

SC

WI

OTHER \_\_\_\_\_

Filtered (Y/N)

Requested Analysis:

EPX Culture 6/25  
PA 6/25  
MADEP VENTERY

Residual Chlorine (Y/N)  
92134424  
Pace Project Number  
Lab I.D.

## Section D Required Client Information

### SAMPLE ID

One Character per box.  
(A-Z, 0-9 / -)

Samples IDs MUST BE UNIQUE

Valid Matrix Codes  
 MATRIX CODE  
 DRINKING WATER DW  
 WATER WT  
 WASTE WATER WW  
 PRODUCT P  
 SOIL/SOLID SL  
 OIL OL  
 WIPE WP  
 AIR AR  
 OTHER OT  
 TISSUE TS

MATRIX CODE

SAMPLE TYPE  
G=GRAB C=COMP

### COLLECTED

#### COMPOSITE START COMPOSITE END/GRAB

DATE TIME DATE TIME

SAMPLE TEMP AT COLLECTION  
Unreserved

# OF CONTAINERS

Preservatives

H<sub>2</sub>SO<sub>4</sub>

HNO<sub>3</sub>

HCl

NaOH

Na<sub>2</sub>SO<sub>3</sub>

Methanol

Other

1	HATCHERY	MW-1	WTG	12-18-06	2:50AM			102	8	X	X	927812008
2												
3												
4												
5												
6												
7												
8												
9												
10												
11												
12												

Additional Comments:

RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITION
Roger D. Moore	12/18/06	15:38		12/18/06	15:58	

### SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER:

SIGNATURE of SAMPLER:

DATE Signed (MM / DD / YY)

Temp in °C	Received on Ice	Custody Sealed	Samples Intact



## **WELL CONSTRUCTION RECORD**



# Non RESIDENTIAL WELL CONSTRUCTION RECORD

North Carolina Department of Environment and Natural Resources- Division of Water Quality

## WELL CONTRACTOR CERTIFICATION # 2581

**1. WELL CONTRACTOR:**

BRIAN THOMAS

Well Contractor (Individual) Name \_\_\_\_\_

GEOLOGIC EXPLORATION, INC.

Well Contractor Company Name \_\_\_\_\_

STREET ADDRESS 176 COMMERCE BLVD

STATESVILLE NC 28625

City or Town State Zip Code

(704) - 872-7686

Area code- Phone number \_\_\_\_\_

**2. WELL INFORMATION:**

SITE WELL ID #(if applicable) MW-1

STATE WELL PERMIT#(if applicable) \_\_\_\_\_

DWQ or OTHER PERMIT #(if applicable) \_\_\_\_\_

**WELL USE** (Check Applicable Box) Monitoring  Municipal/Public 

 Industrial/Commercial  Agricultural  Recovery  Injection 

 Irrigation  Other  (list use) \_\_\_\_\_

DATE DRILLED 12/15/06

 TIME COMPLETED \_\_\_\_\_ AM  PM 
**3. WELL LOCATION:**

CITY: ASHEVILLE COUNTY BUNCOMBE

144 ROBERTS STREET

(Street Name, Numbers, Community, Subdivision, Lot No., Parcel, Zip Code)

**TOPOGRAPHIC / LAND SETTING:**
 Slope  Valley  Flat  Ridge  Other \_\_\_\_\_  
 (check appropriate box)

LATITUDE 3 \_\_\_\_\_

 May be in degrees,  
minutes, seconds or  
in a decimal format

LONGITUDE \_\_\_\_\_

 Latitude/longitude source:  GPS  Topographic map

 (location of well must be shown on a USGS topo map and  
attached to this form if not using GPS)

**4. FACILITY-** is the name of the business where the well is located.

FACILITY ID #(if applicable) \_\_\_\_\_

NAME OF FACILITY THE HATCHERY

STREET ADDRESS 144 ROBERTS STREET

ASHEVILLE NC

City or Town State Zip Code

CONTACT PERSON UROANA

MAILING ADDRESS 40 ROBERTS STREET

ASHEVILLE NC 28801

City or Town State Zip Code

\_\_\_\_\_

Area code - Phone number \_\_\_\_\_

**5. WELL DETAILS:**

a. TOTAL DEPTH: 28.0 FEET

 b. DOES WELL REPLACE EXISTING WELL? YES  NO 

 c. WATER LEVEL Below Top of Casing: 20.0 FT.  
 (Use "+" if Above Top of Casing)

d. TOP OF CASING IS 0.0 FT. Above Land Surface\*

 \*Top of casing terminated at/or below land surface may require  
a variance in accordance with 15A NCAC 2C .0118.

e. YIELD (gpm): N/A METHOD OF TEST N/A

f. DISINFECTION: Type N/A Amount N/A

## g. WATER ZONES (depth):

From \_\_\_\_\_ To \_\_\_\_\_ From \_\_\_\_\_ To \_\_\_\_\_

From \_\_\_\_\_ To \_\_\_\_\_ From \_\_\_\_\_ To \_\_\_\_\_

From \_\_\_\_\_ To \_\_\_\_\_ From \_\_\_\_\_ To \_\_\_\_\_

## h. CASING: Depth Diameter Thickness/ Weight Material

From 0.0 To 13.0 Ft. 2 INCH SCh 40 PVC

From \_\_\_\_\_ To \_\_\_\_\_ Ft. \_\_\_\_\_

From \_\_\_\_\_ To \_\_\_\_\_ Ft. \_\_\_\_\_

## i. GROUT: Depth Material Method

From 0.0 To 7.0 Ft. Portland bentonite SLURRY

From \_\_\_\_\_ To \_\_\_\_\_ Ft. \_\_\_\_\_

From \_\_\_\_\_ To \_\_\_\_\_ Ft. \_\_\_\_\_

## j. SCREEN: Depth Diameter Slot Size Material

From 13.0 To 28.0 Ft. 2.0 in. .010 in. PVC

From \_\_\_\_\_ To \_\_\_\_\_ Ft. \_\_\_\_\_ in. \_\_\_\_\_ in.

From \_\_\_\_\_ To \_\_\_\_\_ Ft. \_\_\_\_\_ in. \_\_\_\_\_ in.

## k. SAND/GRAVEL PACK:

Depth Size Material

From 11.0 To 28.0 Ft. 20-40 Fine Silica Sand

From \_\_\_\_\_ To \_\_\_\_\_ Ft. \_\_\_\_\_

From \_\_\_\_\_ To \_\_\_\_\_ Ft. \_\_\_\_\_

## l. DRILLING LOG

From To Formation Description

0.0 7.0 GRAVEL TANK PITT

7.0 12.0 RED SILTY CLAY

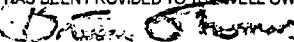
12.0 29.0 TAN SILTY CLAY

29.0 34.0 PARTIALLY WEATHERED ROCK

## m. REMARKS:

Bentonite seal from 7.0 to 11.0 Feet.

 I DO HEREBY CERTIFY THAT THIS WELL WAS CONSTRUCTED IN ACCORDANCE WITH  
15A NCAC 2C, WELL CONSTRUCTION STANDARDS, AND THAT A COPY OF THIS  
RECORD HAS BEEN PROVIDED TO THE WELL OWNER.

  
 SIGNATURE OF CERTIFIED WELL CONTRACTOR

01/04/07

DATE

BRIAN THOMAS

PRINTED NAME OF PERSON CONSTRUCTING THE WELL